



Dialog®

Sub7FT:

- Business & Industry?, File 9 (1994 - present)
- ABI/INFORM?, File 15 (1971 - present)
- Gale Group PROMT?, File 16 (1990 - present)
- Gale Group PROMT?, File 160 (1972-1989)
- Gale Group Trade & Industry Database?, File 148 (1976 - present)
- Gale Group Computer Database?, File 275 (full-text 1/1988 - present)
- Business Wire, File 610 (Mar 1999 - present)
- Business Wire, File 810 (1986 - February 1999)
- Dialog Global Reporter, File 20 (May 1997 - present)
- The McGraw-Hill Companies Publications Online, File 624 (1985 - present)
- Gale Group New Product Announcements/Plus? (NPA/Plus, File 621 (1985 - present)
- Gale Group Newsletter Database?, File 636 (1988 - present)
- PR Newswire, File 613 (May 1999 - present)
- San Jose Mercury News, File 634 (Jun 1985 - present)
- PR Newswire, File 813 (May 1987 - May 1999)

Set#	Query
L1	(enterprise company organization) near5 (assess\$5 determin\$3) near5 (risk\$1 danger threat) with service adj provider\$1

3/9/26 (Item 26 from file: 148)

14124247 ? ? **Supplier Number:** 80750205 (THIS IS THE FULL TEXT)

A road map to risk management: CPAs can help companies manage risk to create value. (Consulting).

Bodine, Stephen W.; Pugliese, Anthony; Walker, Paul L.

Journal of Accountancy , 192 , 6 , 65(5)

Dec , 2001

ISSN: 0021-8448

Language: English

Record Type: Fulltext

Word Count: 3058 ? **Line Count:** 00277

Text:

Successful businesses take calculated risks to achieve objectives. Globalization, deregulation, Web-based services, complicated financial instruments and contracts, emerging markets--all contain tremendous potential advantages for companies and carry the danger of huge mistakes or unexpected developments. Businesses must measure these risks, try to minimize them and--if possible---use them to their advantage. The CPA is the professional best suited to help them manage risk. CPAs--as internal or external advisers--have the skills and competencies required to help companies evaluate and address risk.

This article describes a generic framework or set of steps for risk management--based on current best practices--that is applicable to any size or type of organization. The AICPA risk advisory services task force created the framework as a resource for CPAs advising clients or employers in an increasingly complex business environment.

STEP BY STEP

Although each business may have its own unique approach to risk management, current best practices suggest following these steps:

- * Establish the context; look carefully at an organization's strategy, stakeholders and environment.
- * Identify situations that can affect the business objectives.
- * Analyze and assess the risks.
- * Design strategies for managing risks.
- * Implement and integrate management processes.
- * Measure and monitor the business' efficiency, profitability and vulnerability.

* Report the data to the executives who are in charge.

ESTABLISH THE CONTEXT

Risk management can succeed only when it works within the context of a company's environment, goals, objectives and strategies. Organizations may differ greatly in their risk tolerance and management styles. Deposit-taking institutions necessarily place a high value on solvency and the preservation of capital. Their investors and customers expect a good return with little risk. Companies that prospect for minerals or develop high-tech products focus on big rewards in exchange for big risks. Their investors typically understand this tradeoff and the significance of such an organization's appetite and capacity for risk. CPAs will want to examine a company's business environment and risk tolerance as a first step in risk advisory services.

How do these ideas work in practice? The Medicines Co. (TMC), a pharmaceutical developer in Cambridge, Massachusetts, has been able to minimize risk because it not only understands the market but also knows how to leverage its strengths. According to a report on TMC by Stan Davis and Christopher Meyer in Future Wealth, developing a drug can cost as much as \$300 million, and the process entails several distinct stages--from creating the chemical or biological compound to winning approval from the Food and Drug Administration. Pharmaceutical companies take a risk that the huge investment will pay off in the hope of producing a billion-dollar seller such as Zantac or Viagra.

TMC understands that drug development involves a sequence of very different risks. A product can fail for several reasons at any stage, but the rigors of the approval process can kill it late in the game. The later the failure, the more expensive it is.

TMC recognized which risks it managed well--for example, the potential for failure during clinical trials. It had recognized it was weak in the beginning stages--basic research--and at the end of the process--marketing drugs to physicians. Accordingly, the company buys the

rights to proven chemical and biological compounds, develops them into drugs and then sells them to other pharmaceutical organizations to bring to market. Having successfully found its niche, TCM bears risk only in the areas where it is strongest.

Once a company understands the risks of an undertaking, the owners or management can develop a strategy for containing them. This may involve formally structured policies and procedures or an informal process, depending on the business. Companies may bring in risk management consultants, such as CPAs, to help the business get to this stage. As part of the risk management process, company leaders might ask

- * What are our objectives?
- * What are our values?
- * Who is accountable?
- * Who has the authority?

Questions like these can help establish the context for an organization's risk management efforts.

IDENTIFY SITUATIONS WITH RISK IMPLICATIONS

Managers need a systematic approach for uncovering and addressing risks that might affect a company's success. If a CPA is called on to consult on this aspect of risk management, he or she must develop a risk identification system that's rigorous, flexible and pertinent to the company under the microscope.

What kinds of risks might a business typically discover? The Guinness Co., for example, defined seven types within its large but relatively straightforward businesses, United Distillers and Guinness Brewing Worldwide, according to *Managing Business Risks: An Integrated Approach*, from the economic intelligence unit at Arthur Andersen. The treasurer is responsible for managing them. They are

- * Brand equity risk, which could affect the company's brand name or reputation.
- * Customer satisfaction risk, which would reflect poor consumer reception to products.
- * Product quality risk, which would reflect quality control problems.
- * Catastrophic risk, which would generally cover political, natural or other disasters.
- * Regulatory risk, which results from political changes affecting the industry.
- * Cultural risk, which could damage brand image or acceptance based on changes in the attitudes of consumers.
- * Trade war risk, which would result from price cutting or other competitive practices.

ANALYZE AND ASSESS RISK

Once a company knows its risks, it needs to rank them to establish priorities in order to make decisions. The sidebar, "A Cartography of Risk," page 70, shows how to map the impact of risk.

Quantitative data play an important role in the process. Canadian Pacific is a diversified operating company involved in transportation, energy and hotels. Its bottom line is affected by external factors, such as fluctuations in the prices of crude oil, natural gas and coal, as well as movements in interest and foreign exchange rates. (See exhibit, page 68.) Based on its analyses, Canadian Pacific can use derivative financial instruments, such as foreign exchange contracts, interest rate swaps and futures contracts, to mitigate its risks. This is the kind of quantitative analysis that CPAs can use to help clients or employers assess threats and opportunities.

DESIGN RESPONSE STRATEGIES

Once companies know their risks, there are four basic responses that CPAs can help them consider:

- * Avoid. If the threat associated with an opportunity is too high relative to the potential reward, it may be appropriate to drop the idea. However, some executives--and entire company cultures--may unwittingly

encourage risk aversion, which can result in missed opportunities. CPAs can provide data to illuminate whether an option spells trouble or promises new benefits.

* Transfer. Strategies that CPAs can recommend to shift risk to third parties include buying insurance; using financial instruments, such as derivatives; outsourcing some parts of the process; or creating partnerships or strategic alliances. Transferring risk can be a smart strategy--but part of the due diligence is ensuring that the organization accepting the risk can fulfill its obligations..

* Mitigate. To increase the chances of achieving objectives, CPAs can help employers or clients establish and monitor critical success factors and key performance indicators, which signal whether a strategy is working or failing. The committee of sponsoring organizations (COSO) of the Treadway Commission and criteria of control project of the Canadian Institute of Chartered Accountants models provide guidance on the design and assessment of control in achieving objectives.

* Accept. Companies may be able to live with some risks. For example, a gold mining company facing fluctuating mineral prices may conclude the profit opportunities outweigh the risks.

ACT International, a U.K.-based financial software maker, made specific operational choices to detect and mitigate risk, according to Managing Business Risks: An Integrated Approach. It had grown very quickly until business and profits plummeted in the early 1990s. A survey clearly showed the company had failed to recognize profound customer unhappiness with its products and support. The company solved the problem, in part, with a program to elicit ongoing customer feedback.

Customer surveys can make sense for many types of businesses. ACT asks its customers to rate the following on a scale of 1 (very unsatisfied) to 5 (very satisfied) in a poll that takes between 15 and 30 minutes to complete:

- * Product satisfaction.
- * Account management and sales personnel.
- * Customer service center response quality.
- * Technical support timeliness.
- * Customization of installations.

* Administration and communication. The response rate is greater than 80%. Staff members talk to clients who have given ratings below 3 in any area to learn what they can do to remedy the problem. The focus on customer satisfaction has helped the company return to profitability by mitigating possible future dissatisfaction.

IMPLEMENT AND INTEGRATE

What should clients or employers do to make sure the right risk strategies are in place?

- * Establish specific risk management objectives and performance measures.
- * Create a culture in which employees are accountable for managing risk.
- * Develop an infrastructure for risk management.
- * Communicate information about and training in risk management.

TD Bank strives to be the best risk manager among major Canadian banks. Meeting this objective requires a well established infrastructure, so the bank created a separate division staffed by qualified risk management professionals. Acting independently from the bank's business units, the group established a policy framework and defined TD's risk limits. Senior TD executives approve the group's protocol for managing major financial risks and review it at least annually. In addition, the board of directors' audit and risk management committee approves all such policies.

Risk management has become sufficiently important to boards and audit committees that an October 1999 report of the National Association of Corporate Directors offered guidelines. It concluded that the chairperson of the audit committee should develop an agenda that includes "a periodic

review of risk by each significant business unit." In many organizations, communication and training include raising awareness about risk management, explaining the organization's approach, implementing a common risk language and developing oversight skills.

MEASURE, MONITOR AND REPORT

The enormous scope of risk makes it impossible to have a one-size-fits-all approach to measuring and monitoring it. To understand how well it is managing risk, a firm or company must ask questions about its specific business that are tailored to discern:

- * Are we achieving the results we planned?
- * Are we monitoring and learning from control breakdowns and losses?
- * What are we doing about the major risks that we have identified?
- * Do we have the necessary guidelines or policies and procedures?
- * Do they work--or will they?

Chase Manhattan Bank, now part of J.P. Morgan Chase, evaluated ongoing effectiveness in achieving its strategic goals in three areas: being the **service provider** of choice, the employer of choice and the investment of choice, according to Managing Business

Risks: An Integrated Approach. The evaluation

assesses the **company's** progress or failure to meet its risk goals using the following format. The measurements are subjective, but it would be possible to assess each item on, say, a 1 to 10 scale.

Objective: To be the services provider of choice, measure:

- * Quality of product.
- * Functionality of product.
- * Speed of execution.
- * Cost of delivery.
- * Customer satisfaction.

Objective: To be the employer of choice, measure:

- * Turnover ratios.
- * Salary and benefit levels.
- * Opportunities for development.
- * Employee satisfaction.

Objective: To be the investment of choice, measure:

- * Share price.
- * Return on assets.
- * Return on equity.
- * Earnings.

Good performance management is an essential tool in risk management.

The bank translates these measurements into an ongoing reporting system for management, selectively tracking and attending to the most critical ones.

OPPORTUNITIES FOR ALL

Many accounting firms offer risk advisory services. "CPAs who serve middle-market and small companies are typically very close to the owner/manager and knowledgeable about many aspects of their clients' businesses and their goals," says Susan Menelaides, CPA, of Altschuler, Melvoin and Glasser, LLP, in Chicago. "We already have a good understanding of client companies' business strategies, goals and motivations, which qualifies us to assist them. We can help them keep their focus on setting and achieving goals, identifying what can go wrong and--more positively--maximizing opportunities to succeed. We offer objectivity and knowledge of how similar businesses operate."

Similarly, CPAs working in industry have firsthand insight into the challenges facing companies and the options available to them to mitigate or avoid risk.

The steps outlined in this article provide CPAs a framework for understanding and addressing elements of risk. They are from Managing Risk in the New Economy, an AICPA booklet prepared by the risk advisory task force. CPAs--whether in public practice, corporate finance or internal auditors--are qualified to manage risk for employers or clients. Accepting and managing risk are critical to the success of any organization.

Taking a Well-Hedged Risk Boosts Sales for One Company

As a an enticement, Bombardier, a Canadian aerospace and snowmobile company, offered a \$1,000 rebate to buyers of its Ski-Doo machines in 16 U.S. cities if the local snowfall was less than half the average of that in the past three years. Ski-Doo sales in the 16 cities soared 38% over the year before. Bombardier hedged its bet with snowfall options it purchased from Enron. The company paid Enron between \$45 and \$400 for each snowmobile sold, and Enron agreed to reimburse Bombardier the full \$1,000 for every rebate paid.

Source: Managing Risk in the New Economy, AICPA, Quoting from Future Wealth, by Stan Davis and Christopher Meyer.

EXECUTIVE SUMMARY

* SUCCESSFUL BUSINESSES TAKE CALCULATED RISKS to achieve objectives. Companies must measure these risks, try to minimize them and--if possible--use them to their advantage. The CPA--as internal or external adviser--is the professional best suited to help them manage risk.

* CURRENT BEST PRACTICES follow these steps in the risk management process:

- * Establish the context.
- * Identify potential risks.
- * Analyze and assess.
- * Design strategies for managing risks.
- * Implement and integrate management processes.
- * Measure and monitor the business' efficiency, profitability and vulnerability.

* Report the data to the executives in charge.

* CPAs AT FIRMS AND COMPANIES of all sizes are knowledgeable about clients' or employers' businesses and goals. Managing Risk in the New Economy, an AICPA booklet prepared by the risk advisory task force, provides a framework for understanding and implementing proper risk management steps. It can be found at www.aicpa.org/assurance/index.htm.

Risk Management Resources

AICPA

Managing Risk in the New Economy

This booklet, published by the AICPA risk advisory services task force, is available free of charge by contacting the AICPA's member innovation team at iroger@aicpa.org. It can also be obtained on the Web under Assurance Services at www.aicpa.org/assurance/index.htm. This link also contains information about these services:

CPA Performance View

This is a valuable resource for CPAs who want to assess an organization's ability to monitor risk. It contains a variety of products for delivering consistent business performance measurement consulting services to clients.

SysTrust

SysTrust Principles and Criteria, Version 2.0, describes what is necessary to help manage some system risks and to ensure system availability, security, integrity and maintainability.

WebTrust

WebTrust Principles and Criteria, Version 3.0, details principles to ensure the reliability of a Web site in terms of privacy; transaction integrity; security; availability; nonrepudiation; and confidentiality. CPAs can rely on the principles and criteria underlying these risk advisory services in creating strategies for their own businesses, their employers or their clients.

Other sources

- * American Management Association: www.amanet.org.
- * Financial Executives Institute: www.fei.org.
- * Institute of Internal Auditors: www.theila.org.
- * Institute of Management Accountants: www.lmanet.org.
- * National Association of Corporate Directors: www.nacdonline.org.
- * The Risk Management Association (formerly Robert Morris

Associates): www.rmahg.org.

Canadian Pacific Data, Hedged and Unhedged

This illustrates the estimated effect of changes, under certain conditions, in the foreign exchange value of the Canadian dollar, interest rates and the prices of crude oil, natural gas and coal on consolidated 2000 earnings, based on the company's 1999 annual report:

	Effect on net income excluding hedging	Effect on net income including hedging
U.S. one-cent decrease in the value of the Canadian dollar	\$26	\$9
One percentage point decrease in interest rates	&6	\$6
U.S. \$1 per barrel increase in the price of West Texas Intermediate crude oil		
--Pan Canadian	\$34	\$29
--Other businesses	(\$14)	(\$14)
10-cent per thousand cubic feet increase in natural gas prices	\$17	\$17
U.S. \$1 per metric ton increase in coal prices	\$13	\$13

A Cartography of Risk

A simple but powerful way to display the relationship between the likelihood and consequences of an event is to use a risk grid. This exercise can "map" by critical success factor, overall organization objective or each of the categories used in identifying risk.

Imagine a company relies heavily on a supplier that has a long track record in its field and a solid financial history. If the supplier were to go out of business or temporarily cease operations, the consequences to the company would be high, but the likelihood of such an event is low. This risk thus would be plotted on the map as noted by the X below. Once a company has plotted its risks on this map, it would concentrate first on those in the upper right box--high consequences and high likelihood of occurrence--then work its way down and left to deal with less likely or consequential threats. The map offers a quick graphic illustration of risks facing the company and where they are clustered in terms of severity and chances of occurring.

Risk mapping can be used for both aspects of risk: opportunities and threats. Organizations may also find it useful to prepare risk maps for different time horizons.

Consequence Likelihood of occurrence

High	X	
Moderate		
Low		
Low	Moderate	High
(Remote)	(Possible)	(Probable)

STEPHEN W. BODINE, CPA, a principal with Larson, Allen, Weishair & Co., LLP, Minneapolis, is also a member of the risk task force. His e-mail address is sbodine@larsonalten.com. ANTHONY PUGLIESE, CPA, is AICPA vice-president--member innovation. His e-mail address is apugliese@aicpa.org. Mr. Pugliese is an employee of the American Institute of CPAs and his views, as expressed in this article, do not necessarily reflect the views of the AICPA. Official positions are determined through certain specific committee procedures, due process and deliberation. PAUL L. WALKER, CPA, PhD, an associate professor at the University of Virginia, is a member of the AICPA/CICA risk task force. His e-mail address is pw4g@forbes2.comm.virginia.edu.

COPYRIGHT 2001 American Institute of CPA's

Industry Codes/Names: BANK Banking, Finance and Accounting; BUSN Any type of business; LAW Law

Descriptors: Risk management--Analysis

Geographic Codes: 1USA United States

File Segment: LRI File 150

3/9/27 (Item 27 from file: 16)

09166177 ? **Supplier Number:** 79950393

LabOne Reports Third Quarter Results.

Business Wire , p 0233

Nov 12 , 2001

Language: English ? **Record Type:** Fulltext

Document Type: Newswire ; Trade

Word Count: 1023

Text:

Business Editors

LENEXA, Kan.--(BUSINESS WIRE)--Nov. 12, 2001

LabOne, Inc. (Nasdaq:LABS) today reported record revenues of \$58.2 million for its third quarter ended September 30, 2001, an increase of \$14.6 million or 33% over the third quarter 2000.

Revenues for the third quarter 2001 included \$2.6 million contributed by the Osborn Group (Osborn), acquired August 31, 2001. Risk assessment services revenues increased \$13.3 million (51%), healthcare increased by \$1.7 million (17%) and substance abuse testing declined by \$0.4 million (5%).

The company reported a net loss of \$3.5 million or \$0.33 per share compared to net income of \$0.4 million or \$0.03 per share for the third quarter 2000. These results include a non-cash charge of \$3.2 million associated with warrants issued in connection with the investment by Welsh, Carson, Anderson and Stowe (WCAS) and an additional \$0.4 million in after tax charges associated with the acquisition of Osborn during the quarter. Excluding \$0.7 million of charges associated with the Osborn acquisition, EBITDA for the quarter was \$4.6 million compared to \$4.6 million last year.

"Since the completion of the Osborn acquisition, we have dedicated much of our operational resources to the integration with LabOne," said W. Thomas Grant II, chairman, president and CEO of LabOne. "Although our efforts to integrate Osborn are on schedule, it is too early to realize any synergies. The completion of these integration efforts is scheduled during the fourth quarter of this year. Once completed, we expect to realize up to \$10 million in annual savings associated with the elimination of duplicative laboratory costs.

"The tragic events of September 11 had a modest impact on our operating results for the quarter. Risk assessment services activity declined immediately following the tragedy, but has since increased considerably. The temporary transportation delays had an unfavorable impact, not only with the delivery of healthcare specimens, but also with the costs associated with inbound freight during this period. Although minimally impacted by the disruption of air service, substance abuse testing continues to be impacted by the weakening labor market as it

affects pre-employment screening."

"The calculation of basic and diluted earnings per share is somewhat complicated by the complex financing structure with WCAS related to the Osborn acquisition," said John W. McCarty, executive vice president and CFO. "The pro-forma financial statements and related notes included in the 8-K/A, to be filed this week with the Securities and Exchange commission, will provide additional information about the existing capital structure and the expected expense reductions associated with the Osborn acquisition."

LabOne will conduct its quarterly conference call with Mr. Grant, Mr. McCarty and Mike Asselta, executive vice president and COO, at 9 a.m. Eastern Time, November 12. To join the conference call, dial 1-800-556-3831 and enter the passcode 00975. Following the call, a recording of the call will be available as a voice mail at 1-800-736-8106, and as a download file from the **company's** web site at www.LabOne.com.

About LabOne, Inc.

LabOne is a national laboratory testing and information **service provider** with three divisions:

risk assessment services, healthcare and substance abuse testing. The **risk assessment** division, with its Intellisys, ExamOne and SBSI companies, provides laboratory testing, paramedical examinations, attending physician statements, motor vehicle reports, background inspections and personal history interviews to life and health insurance companies. LabOne's healthcare division provides diagnostic testing and related services to physicians and managed care organizations, and to benefit providers and employers through its unique Lab Card(R) benefit program. The company's substance abuse testing division provides drug testing to employers. LabOne's web site is located at www.LabOne.com.

Forward-looking Statements

This press release contains "forward-looking statements," including, but not limited to, projections and statements of revenues, EBITDA and earnings growth. Forward-looking statements often can be identified by the use of forward-looking terminology, such as "believes," "expects," "may," "will," "should," "could," "intends," "plans," "estimates," "anticipates," variations there of, or similar expressions. The Company's future results of operations, financial condition and business operations may differ materially from those expressed in these forward-looking statements. Many factors could cause actual results to differ materially from those that may be expressed or implied in such forward-looking statements, including, but not limited to, the volume and pricing of laboratory tests performed by LabOne, competition, the extent of market acceptance of the Company's healthcare and substance abuse testing and related services, changes in government regulations and attitude toward regulation of the Company's services, the ability of LabOne to successfully integrate the Osborn Group, general economic conditions and other factors detailed from time to time in the Company's reports and registration statements filed with the Securities and Exchange Commission. Investors are cautioned not to put undue reliance on any forward-looking statement.

SELECTED FINANCIAL DATA

	Quarter months ended 2001	September 30, 2000	% Increase (Decrease)
Sales	58,234,380	43,626,533	33%
Net earnings (loss)	(3,488,909)	357,527	(1076%)
Basic and diluted earnings (loss) per common share	(0.33)	0.03	
Total assets			
Working capital			

	Nine months ended 2001	September 30, 2000	% Increase (Decrease)
Sales			
Net earnings (loss)			
Basic and diluted earnings (loss) per common share	164,294,335 (2,487,889)	123,368,602 1,138,765	33% (318%)
Total assets	(0.24)	0.10	
Working capital	192,050,453 26,311,879	124,102,559 22,986,206	

Consolidated Balance Sheets

	September 30, 2001	December 31, 2000
--	-----------------------	----------------------

ASSETS

Current assets:

Cash and cash equivalents	\$ 1,607,453	\$ 1,571,734
Accounts receivable - trade, net of allowance for doubtful accounts of \$3,035,095 in 2001 and \$4,406,612 in 2000	46,796,172	33,916,445
Income taxes receivable	411,173	2,065,750
Inventories	5,794,368	3,276,794
Prepaid expenses and other current assets	4,775,745	3,948,390
Deferred income taxes	2,351,646	2,740,824
<hr/>		
Total current assets	61,736,557	47,519,937
Property, plant and equipment	104,518,104	89,244,999
Less accumulated depreciation	57,115,208	43,936,028
<hr/>		
Net property, plant and equipment	47,402,896	45,308,971
Other assets:		
Intangible assets, net of accumulated amortization	82,674,974	34,728,755
Bond issue costs, net of accumulated amortization of \$53,859 in 2001 and \$40,758 in 2000	138,287	151,388
Deposits and other assets	97,739	270,124
<hr/>		
Total assets	\$192,050,453	\$127,979,175

LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities:

Accounts payable	\$ 22,273,961	\$ 14,516,703
Accrued payroll and benefits	7,713,364	4,457,136
Other accrued expenses	3,034,302	1,714,033
Other current liabilities	480,886	279,228
Notes payable	50,000	81,250
Current portion of long-term debt	1,872,165	1,878,845
<hr/>		
Total current liabilities	35,424,678	22,927,195
Corporate borrowings	39,581,788	38,677,349
Other long term debt	36,093,333	-
Deferred income taxes -noncurrent	1,881,000	1,663,669

Stockholders' equity:

Preferred stock, \$.01 par
value per share; 3,000,000

shares authorized, Series B-1, 14,000 shares issued	14,000,000	-
Common stock, \$.01 par value per share; 40,000,000 shares authorized, 13,050,020		
shares issued	130,500	130,500
Additional paid-in capital	34,583,642	31,609,884
Equity adjustment from foreign currency translation	(850,913)	(832,280)
Retained earnings	65,088,758	69,234,884
	-----	-----
	112,951,987	100,142,988
Less treasury stock of 2,246,710 shares in 2001 and 2,324,671 shares in 2000	33,882,333	35,432,026
	-----	-----
Total stockholders' equity	79,069,654	64,710,962
	-----	-----
Total liabilities and stockholders' equity	\$192,050,453	\$127,979,175

Consolidated Statements of Operations

	Quarter ended September 30, 2001	2000
Sales	\$ 58,234,380	43,626,533
Cost of sales		
Cost of sales expenses	41,283,616	29,086,601
Depreciation expense	756,400	596,269
	-----	-----
Total cost of sales	42,040,016	29,682,870
Gross profit	16,194,364	13,943,663
Selling, general and administrative		
Selling, general and administrative expenses	13,063,679	9,953,722
Depreciation expense	1,267,074	1,093,831
Amortization expense	4,313,081	1,045,001
	-----	-----
Total selling, general and administrative	18,643,834	12,092,554
Earnings (loss) from operations	(2,449,470)	1,851,109
Interest expense	(919,943)	(673,127)
Interest income and other	311,703	18,340
	-----	-----
Earnings (loss) before income taxes	(3,057,710)	1,196,322
Income tax expense	431,199	838,795
	-----	-----
Net earnings (loss)	\$ (3,488,909)	357,527
Basic and diluted earnings (loss) per common share	\$ (0.33)	0.03

	Nine months ended September 30, 2001 2000	
Sales	\$ 164,294,335	123,368,602
Cost of sales		
Cost of sales expenses	114,520,998	80,317,835
Depreciation expense	2,097,867	1,729,335

Total cost of sales	116,618,865	82,047,170

Gross profit	47,675,470	41,321,432
Selling, general and administrative		
Selling, general and administrative expenses	36,118,137	30,005,574
Depreciation expense	3,659,123	3,031,637
Amortization expense	7,052,695	3,128,422

Total selling, general and administrative	46,829,955	36,165,633

Earnings (loss) from operations	845,515	5,155,799
Interest expense	(2,132,171)	(1,771,272)
Interest income and other	460,102	58,738

Earnings (loss) before income taxes	(826,554)	3,443,265
Income tax expense	1,661,335	2,304,500

Net earnings (loss)	\$ (2,487,889)	1,138,765

Basic and diluted earnings (loss) per common share	\$ (0.24)	0.10

COPYRIGHT 2001 Business Wire

COPYRIGHT 2001 Gale Group

Publisher Name: Business Wire

Company Names: *LabOne Inc.; Osborn Group

Geographic Names: *1USA (United States)

Product Names: *7397000 (Testing Laboratories)

Industry Names: BUS (Business, General); BUSN (Any type of business)

SIC Codes: 8734 (Testing laboratories)

NAICS Codes: 54138 (Testing Laboratories)

Ticker Symbols: HORL

Special Features: LOB; COMPANY

3/9/28 (Item 28 from file: 16)

09143287 ? **Supplier Number:** 79668496

LabOne to Announce Third-Quarter Results and Schedules Conference Call.

Business Wire , p 0291

Nov 2 , 2001

Language: English ? **Record Type:** Fulltext

Document Type: Newswire ; Trade

Word Count: 369

Text:

Business Editors

LENEXA, Kan.--(BUSINESS WIRE)--Nov. 2, 2001

LabOne, Inc. (Nasdaq NMS:LABS) announced today that it will report third-quarter financial results before the open of the market November 12, 2001.

LabOne will conduct its quarterly conference call with W. Thomas Grant II, chairman, president and CEO, John W. McCarty, executive vice president and CFO, and Mike Asselta, executive vice president and COO, at 9 a.m. Eastern Time, November 12. To join the conference call, dial 800/556-3831 and enter the passcode 00975. Following the call, a recording of the call will be available as a voice mail at 800/736-8106, and as a download file from the **company's** web site at www.LabOne.com.

About LabOne, Inc.

LabOne is a national laboratory testing and information **service provider** with three divisions:

risk assessment services, healthcare and substance abuse testing. The **risk assessment** division, with its Intellisys, ExamOne and SBSI companies, provides laboratory testing, paramedical examinations, attending physician statements, motor vehicle reports, background inspections and personal history interviews to life and health insurance companies. LabOne's healthcare division provides diagnostic testing and related services to physicians and managed care organizations, and to benefit providers and employers through its unique Lab Card(R) benefit program. The company's substance abuse testing division provides drug testing to employers. LabOne's web site is located at www.LabOne.com.

Forward-Looking Statements

This press release may contain "forward-looking statements" as well as historical information. Forward-looking statements include projections, statements of plans and objectives, statements of future economic performance and statements of assumptions underlying such statements. Forward-looking statements involve known and unknown risks and uncertainties. Many factors could cause actual results to differ materially from those that may be expressed or implied in such forward-looking statements, including, but not limited to, the volume and pricing of laboratory tests performed by LabOne, competition, the extent of market acceptance of the Company's testing services in the healthcare and substance abuse testing industries, general economic conditions and other factors detailed from time to time in the Company's reports and registration statements filed with the Securities and Exchange Commission.

COPYRIGHT 2001 Business Wire

COPYRIGHT 2001 Gale Group

Publisher Name: Business Wire

Company Names: *Lab Holdings Inc.
Geographic Names: *1USA (United States)
Product Names: *8516000 (Laboratories)
Industry Names: BUS (Business, General); BUSN (Any type of business)
SIC Codes: 8730 (Research and Testing Services)
NAICS Codes: 5417 (Scientific Research and Development Services)
Special Features: LOB; COMPANY

3/9/29 (Item 29 from file: 15)
02227747 ? ? ? ? ? 81258452
It's not what you know

Van De Gohm, Pete
Security Management ? v45n9 ?pp: 93-97
Sep 2001
CODEN: SECME6
ISSN: 0145-9406 ?Journal Code: SEM
Document Type: Periodical; Feature ?Language: English ?Record Type: Fulltext ?Length: 4 Pages
Word Count: 3513

Abstract:

In the last decade, the evolution in corporate restructuring, the exponential growth in information technologies, and an increasing rush toward globalization have changed the ways in which proprietary information must be safeguarded. One of the most important changes is the increasing interconnectedness of systems. The key to protecting proprietary information in this multifaceted environment is to ensure that the level of protection provided to all proprietary information, whatever medium it exists in, is consistent.

?

Text:

SAFEGUARDING INFORMATION

It's how you protect it. Protecting proprietary information in today's corporate climate requires an understanding of the risks.

IN THE LAST DECADE, the evolution in corporate restructuring, the exponential growth in information technologies, and an increasing rush toward globalization have changed the ways in which proprietary information must be safeguarded. One of the most important changes is the increasing interconnectedness of systems. These interconnected systems within and among corporations pose new challenges for the security professional working to safeguard proprietary information. For instance, 10 years ago, the protection perimeter was very easy to define, because most sensitive information was on paper and could be secured in a desk, box, or container. With the digitization of data, knowing where sensitive information is at all times has become more difficult. But many of the old challenges remain as well. For example, protection efforts must be integrated among different managers with diverse agendas. And employees must be made aware of the role they play in information protection. The first step in information protection is to understand the nature of the risks (see sidebar). Solutions can then be adapted according to the specific manifestations of

these risks at each business.

The key to protecting proprietary information in this multifaceted environment is to ensure that the level of protection provided to all proprietary information, whatever medium it exists in, is consistent. For example, if a piece of information requires physical access controls, such as copy numbers or limited distribution, then that piece of information should have the equivalent IT system access controls placed on it in its electronic incarnation, and employees should be made aware of the need to handle that information with equal care in any form.

ANALYSIS

The first step in ensuring consistent protection for all critical information is to clearly identify what information is significant, who might want it, and the time frame over which its protection must be ensured. The second step is to develop adequate procedures.

Identify assets. To identify what must be protected, a security manager needs to find out how critical each information asset is and where it is. This information should be coupled with a brief snapshot of a company's goals and objectives to clarify why and how the information is valuable.

To gather this type of information, the security team will need to work with managers from all business units. For example, when the author undertook this process at Enron Energy Services Inc. (EES), he interviewed each managing director, asking six questions: What is critical to the product, where is the intellectual property, what gives the company its competitive advantage, what helps create value for customers, what is critical to revenue flow, and who has it? He then hired a consultant to conduct a competitive intelligence analysis. The purpose of that analysis was to learn what information was already publicly available, whether information was being released inappropriately, and whether the company still had to expend resources to protect information already released.

Know the enemy. The company must also assess who might want to target the information. Understanding who may have a need for the information may help the company fine-tune its awareness training and protection procedures. For instance, potential employees might want to learn more about the company. If the company stock is publicly traded, financial analysts will want to keep their information current. And individuals with stock might engage in online discussions to find information about the future success of their holdings. Of course, proprietary information must be protected from all entities that do not have a business need to know.

Set a time frame. Information, like many products, has a shelf life. Some information, such as a special manufacturing process, might be valuable for years. Other information, such as a product-launch marketing plan, may only need to remain confidential for a short time. By identifying exactly how long each information asset needs to be secured, the company can avoid wasting resources. The central facts to consider are the life of the information and how long it has value to the company and to outside organizations. Another factor is the corporate culture.

The cost of protection for each piece of information must be balanced against the loss that would be incurred if the data were exposed early. For example, the thrust of a company's new marketing campaign will become apparent the first time it is publicly shown. At that point, related documents can be recategorized to a lower level of protection. However, if this information were to be discovered before the campaign were initiated, competitors might develop a counter-campaign or a similar product, causing the company to lose its competitive edge and possibly leading to a loss of market share. At EES, as in most companies, the quarterly financial figures

are considered to be very sensitive until they are released. Not only can they affect stock prices, but also federal regulations require that this information be protected.

IMPLEMENTATION

Although much has changed with the advent of computers, the safeguarding of proprietary information still relies on the successful implementation of traditional physical security efforts, coupled with electronic security, and good employee training. We will not go into the specifics of physical security here, but it may be useful to highlight a few less traditional aspects of physical protection before looking at electronic measures.

Physical measures. Security professionals should consider how crime prevention through environmental design (CPTED) practices can be applied to information protection. The security team can consider where rooms that will house critical departments, such as finance, should be located or where the company should place meeting rooms in which strategic planning discussions will take place. By doing so, they can make it easier to create a safety zone for critical business activities or confidential discussions of issues such as mergers and acquisitions. And when conducting an analysis of existing proprietary protection procedures, security managers should ask whether nonemployees can gain access to the offices of these departments.

When EES relocated its senior management, CPTED principles were incorporated into the design, with security working closely with the interior designers and business owners. The result was increased protection for proprietary information in addition to overall improvements in executive protection. For example, the mergers and acquisitions department was placed away from high-traffic areas and away from the main entryways. Also, the receptionist was positioned to have a clear view of the lobby area.

Labeling. Another consideration is how to mark information so that employees know it requires a particular level of protection. Technology can play a role in this arena. At EES, the IT department created, at the author's request, templates for all relevant computer applications. For example, using a Microsoft Office template, an employee could select "Confidential" from a drop-down list when creating a new document. The classification labeling would already be included in the document. The templates make it easy for employees to label data, and they ensure consistent labeling throughout the company.

Retention and destruction. Another aspect of physical protection is the retention and destruction process. Most companies have developed document retention schedules. They then outsource the tasks of storage and eventual destruction of information according to the schedule. A close review of these procedures and of the suppliers should be undertaken as a part of the information security analysis to ensure that all material containing proprietary information, whatever the medium, is appropriately destroyed.

For instance, as mentioned previously, office paper often is not shredded before being sent through the recycling process. Security managers must conduct due diligence on contractors' activities to see that the paper is handled properly. Several companies that specialize in document destruction will certify that the material has been shredded before being sent to the recycling plant. Using one of these companies will significantly reduce the possibility that proprietary information will be released.

Electronic measures. The greatest threats to proprietary information lie in the electronic realm. The first step in evaluating this risk is to review how the proprietary information is generated within and used by the IT

systems.

The key point is to review where the most sensitive information is processed and stored and how it is transmitted. The review should involve the employees who work with the information because they understand its sensitivity best. The review should attempt to identify vulnerabilities in the IT systems that would permit entities without a business need-to-know to access the information.

Backup and recovery. Backup and recovery procedures should be scrutinized. Some information might be so sensitive that it is excluded from these routine processes. If so, the company must ensure that an appropriate backup and recovery procedure is in place; otherwise, a failure might mean that vital data cannot be recovered.

Audits. Standard business audits are another tool for examining IT vulnerabilities. At EES, information protection is a component of the company's annual external audit of its business units. Auditors look at how each unit identifies sensitive information and vulnerabilities and how it manages them.

Security products. One problem is that few business standards in the IT arena exist. The "Common Criteria" (ISO 15408, "Evaluation Criteria for Information Technology Security") provides requirements for evaluating security products and systems. A product will be evaluated by an independent lab to determine whether it meets a certain level of protection, based on factors such as security objectives and how the equipment will be used. Though most corporations do not have a need for formally evaluated products, some companies have sensitive information that warrants a particular level of protection. For instance, companies providing PKI seek strong protection for the computers holding digital certificates. However, for most companies, security is subordinate to return on investment; thus, cost-benefit figures govern whether these products are purchased.

Collaboration. Though the IT department is typically responsible for the technical aspects of ensuring the confidentiality, integrity, and availability of information systems, security managers must work with their colleagues in IT to provide balanced policies and an understanding of what is proprietary and needs protection. By collaborating to develop comprehensive policies, the security and IT departments can work from a common set of guidelines.

Two ways of accomplishing this collaboration are by combining physical and IT protection efforts into one department or by creating one entity accountable for ensuring that both departments' protection policies are consistent and woven together to present a unified effort. At EES, the two groups are separate, but the oversight of policies resides with the author, who works closely with the chief information officer and other business leaders to make sure the security processes put in place are consistent with EES's business needs.

Such a collaborative effort presents a strong deterrent to individuals attempting to circumvent the protection process. It also maximizes the protection budget by identifying potential overlaps or mismatches between physical and IT protection. For example, the IT department might invest in robust servers to protect sensitive information that meets the Common Criteria standards, yet the physical security at the data center may not be adequate. Conversely, the data center may be protected like Fort Knox, but the passwords for the servers may be weak.

Employee issues. The final procedural step to be addressed concerns employee policies and training. At EES, this portion of the protection

process begins before an employee is hired. The offer package includes a copy of the company's conduct of ethics booklet, which addresses proprietary information; a certificate of compliance for the applicant to read and sign; and an offer letter stating that the offer is contingent on the applicant signing the compliance certificate. These efforts are in addition to standard preemployment background checks. After the applicant is hired, the employee orientation session reinforces the importance EES places on the protection of intellectual property.

During employment, employees receive regular refresher training, and at their annual performance review, they restate their understanding and compliance with the conduct of ethics by signing a statement printed on the review form. Additional information is provided during leadership and management training and at various educational events over the year. These refresher events, though they require considerable effort by the company, are critical to the success of a protection program.

EAPs. Awareness training is one way to ensure that employees fulfill that role. But whether employees reveal or protect intellectual property often comes down to their loyalty to the company and how they believe their employer has treated them. Employees who feel disenfranchised, for whatever reason, are more likely to reveal proprietary information or to be easy marks for competitive intelligence professionals seeking to exploit human weaknesses to access sensitive information.

For this reason, information protection professionals should encourage employees to use the company's employee assistance program (EAP). The program offers counseling in drug and alcohol abuse, financial responsibility, and interpersonal relationships. A viable EAP program lets employees know the company cares about them, which might be a deciding factor when an employee has to choose between protecting the company's intellectual property and revealing information. It is another tool a company can use to help safeguard proprietary information.

If companies do not have an EAP, other options include working with the human resources department, for instance, to review the medical benefits program and determine whether drug and alcohol counseling is covered. Also, some companies conduct in-house financial programs to teach employees about basic checking accounts, budgeting, loans, credit cards, and so forth. These programs help employees avoid personal problems and, therefore, make them less susceptible to competitive intelligence practitioners' techniques.

Rewards. In addition to having good procedures, companies must reward the people who assist their proprietary information protection program: The entire company must buy in to the security process. At the very least, each incident reported should be acknowledged with a quick e-mail or telephone call thanking the person for his or her participation in the protection program. The company may also want to have some formal corporate recognition program tied to information protection efforts.

In addition, most corporations track various statistics that can be developed and used so that employees are constantly reminded of protection efforts. For instance, the author tracks the use of shred bins at EES, reporting monthly on how many were emptied and the cost. The objective is to show employees the increased acceptance of this destruction method and the volume of information now being appropriately destroyed.

Often, greater time must be spent in protecting proprietary information during the termination process than the hiring process. At EES, employees leaving the company are provided further guidance regarding their obligations to protect intellectual property.

Security professionals must continue to develop new ways of protecting proprietary information. Challenges on the horizon—including advances in telecommunications, the impact of greater use of the Internet in businesses, and an increasingly mobile workforce—require that companies continually adapt their information protection strategies to ensure that there isn't a shadow of a doubt about who knows the company's secrets.

NATURE OF THE RISK

RISKS TO PROPRIETARY INFORMATION fall generally into four major categories: verbal, visual, physical, and electronic.

Verbal. One of the greatest risks to proprietary information is that employees will openly discuss

it through conversations they consider private without realizing that they are in public forums where others can overhear them. For example, the author heard from another se

curity practitioner about an incident in which employees were celebrating too loudly on an airplane about their new marketing campaign and how it was going to drive their competitor out of the market. They then watched in horror as the competitor's security director, who was on the same flight, picked up the phone on board and called his CEO to outline their new plan.

Competitive intelligence professionals often take advantage of the naivete of employees and their willingness to talk in public places with each other or to talk business with newfound "friends." For example, professionals charged with collecting intelligence about competitors have been known to purposely join the same gym as one of their competitors' executives in an attempt to elicit information.

Lunchtime at local restaurants provides another great opportunity to learn what's happening at a company; intelligence practitioners can go to known hangouts and listen to the conversations around them. And employees are also often subject to elicitation calls; individuals trained in "human engineering" know just what to say to get untrained staff to reveal proprietary information on the phone.

Visual. Visual risks to proprietary information are also numerous. For example, critical information is often left on office whiteboards after planning sessions or marketing presentations without any thought as to who might walk into the room next and see those notes. The author knows of one company that had a strategy meeting the day before closing a multimillion-dollar deal. The meeting lasted into the night, and the board was covered with pricing information,

negotiation hard points, financial risk, and other critical data needed to close the deal. When the potential customer's representatives arrived early for the meeting the next morning, an assistant walked them into that particular conference room and left them alone for 30 minutes. When the team came in to conduct the negotiations, the deal had already been lost.

Visual risks to information take some creative forms, because competitive intelligence professionals aggressively seek out opportunities to retrieve information through visual means. In one case, two senior executives from competing companies had been holding secret discussions on a possible merger. A third competitor had heard rumors and learned that a decision was going to be made when the two executives met for dinner. The third company learned the location of the restaurant, evaluated the possible courses of

action, and hired two lip readers to "listen in" on the conversation by watching and recording what was said.

Many other forms of creative observation could be categorized as visual risks. For example, corporate intelligence practitioners trying to determine what a competitor is doing might count railcars or even measure the compression of the rust on the rails to determine how full the cars are.

Physical. Physical risks to proprietary information take several forms. The simplest is that lax visitor controls can lead to unauthorized persons walking through facilities without an escort, making it easy for anyone to look for security weaknesses or gather intelligence and then walk out unobserved. Other physical risks may involve attempts to defeat access controls or steal laptops. More sophisticated intelligence gathering efforts may also be used, such as when visitors to pharmaceutical companies apply a sticky substance to their shoes so that they can pick up dust and analyze it to determine its chemical composition.

Physical risks can also arise from the careless disposal of materials. Early drafts of sensitive memos might be tossed into recycling bins, and trash companies may not securely transport the material or shred it before turning it over to the recycler.

Electronic. While verbal, visual, and physical risks to information date back to the beginning of knowledge itself, the computer age has brought with it the greatest new risk to a company's proprietary data. It is that today's proprietary information increasingly resides as electronic bits and bytes within the company's networked computer system. The electronic environment is full of exposures. In simple terms, if a company's computer network is connected to the outside world, as most now are, that system can be hacked into from anywhere in the world.

While no perfect safeguards exist, the most common problem is that companies do not properly configure their systems

to close known loopholes and monitor for signs of unauthorized entry. Hackers constantly scan networks worldwide looking for misconfigured systems they can exploit. Almost anyone can use sophisticated programming tools to analyze a system for vulnerabilities. These attacks are delivered using back doors, trusted links, the Internet, and insiders.

Electronic means can often be used to circumvent a company's physical protections. For instance, the increased use of computers in telephony raises the question of whether a company's telephone switch is electronically isolated from the information network. Other concerns include what is posted on the company's Web page and whether employees are educated on the use of online chat rooms, stock message boards, and so on, both at work and at home.

Imagine that an employee gets involved in "cheerleading" company stock online and in doing so reveals future plans that are not publicly available. In addition to the loss of proprietary information, there may be Securities and Exchange Commission violations to contend with.

Security managers should also be concerned about who is connecting to the **company's** networks, including the corporate intranet. With the growing use of consultants and **service providers** who need access to the intranet as part of their jobs, proprietary information is at higher **risk**.

Management should **determine** whether different business units

meet a common minimum standard for security or whether one can be exploited against another. In a multidivision, decentralized **company**, weaknesses in one division's IT infrastructure might be exploited to penetrate another's computers.

BY PETE VAN DE GOHM, CPP

Pete van de Gohm, CPP, is director of information asset protection for Enron Energy Services Inc. He is a member of ASIS.

THIS IS THE FULL-TEXT.

Copyright American Society for Industrial Security Sep 2001

Geographic Names: United States; US

Descriptors: Proprietary; Intellectual property; Security management; Information technology; Globalization

Classification Codes: 5140 (CN=Security); 5220 (CN=Information technology management); 9190 (CN=United States)

Print Media ID: 19213

3/9/30 (Item 30 from file: 148)

13870940 ? ? Supplier Number: 78576325 (THIS IS THE FULL TEXT)

It's Not What You Know.(information security)

GOHM, PETE VAN DE

Security Management , 45 , 9 , 93

Sept , 2001

ISSN: 0145-9406

Language: English

Record Type: Fulltext

Word Count: 3732 ? ?Line Count: 00314

Text:

It's how you protect it. Protecting proprietary information in today's corporate climate requires an understanding of the risks.

IN THE LAST DECADE, the evolution in corporate restructuring, the exponential growth in information technologies, and an increasing rush toward globalization have changed the ways in which proprietary information must be safeguarded. One of the most important changes is the increasing interconnectedness of systems. These interconnected systems within and among corporations pose new challenges for the security professional working to safeguard proprietary information. For instance, 10 years ago, the protection perimeter was very easy to define, because most sensitive information was on paper and could be secured in a desk, box, or container. With the digitization of data, knowing where sensitive information is at all times has become more difficult. But many of the old challenges remain

as well. For example, protection efforts must be integrated among different managers with diverse agendas. And employees must be made aware of the role they play in information protection. The first step in information protection is to understand the nature of the risks (see sidebar). Solutions can then be adapted according to the specific manifestations of these risks at each business.

The key to protecting proprietary information in this multifaceted environment is to ensure that the level of protection provided to all proprietary information, whatever medium it exists in, is consistent. For example, if a piece of information requires physical access controls, such as copy numbers or limited distribution, then that piece of information should have the equivalent IT system access controls placed on it in its electronic incarnation, and employees should be made aware of the need to handle that information with equal care in any form.

ANALYSIS

The first step in ensuring consistent protection for all critical information is to clearly identify what information is significant, who might want it, and the time frame over which its protection must be ensured. The second step is to develop adequate procedures.

Identify assets. To identify what must be protected, a security manager needs to find out how critical each information asset is and where it is. This information should be coupled with a brief snapshot of a company's goals and objectives to clarify why and how the information is valuable.

To gather this type of information, the security team will need to work with managers from all business units. For example, when the author undertook this process at Enron Energy Services Inc. (EES), he interviewed each managing director, asking six questions: What is critical to the product, where is the intellectual property, what gives the company its competitive advantage, what helps create value for customers, what is critical to revenue flow, and who has it? He then hired a consultant to conduct a competitive intelligence analysis. The purpose of that analysis was to learn what information was already publicly available, whether information was being released inappropriately, and whether the company still had to expend resources to protect information already released.

Know the enemy. The company must also assess who might want to target the information. Understanding who may have a need for the information may help the company fine-tune its awareness training and protection procedures. For instance, potential employees might want to learn more about the company. If the company stock is publicly traded, financial analysts will want to keep their information current. And individuals with stock might engage in online discussions to find information about the future success of their holdings. Of course, proprietary information must be protected from all entities that do not have a business need to know.

Set a time frame. Information, like many products, has a shelf life. Some information, such as a special manufacturing process, might be valuable for years. Other information, such as a product-launch marketing plan, may only need to remain confidential for a short time. By identifying exactly how long each information asset needs to be secured, the company can avoid wasting resources. The central facts to consider are the life of the information and how long it has value to the company and to outside organizations. Another factor is the corporate culture.

The cost of protection for each piece of information must be balanced against the loss that would be incurred if the data were exposed early. For example, the thrust of a company's new marketing campaign will become apparent the first time it is publicly shown. At that point, related documents can be recategorized to a lower level of protection. However, if this information were to be discovered before the campaign were initiated, competitors might develop a counter-campaign or a similar product, causing the company to lose its competitive edge and possibly leading to a loss of market share. At EES, as in most companies, the quarterly financial figures

are considered to be very sensitive until they are released. Not only can they affect stock prices, but also federal regulations require that this information be protected.

IMPLEMENTATION

Although much has changed with the advent of computers, the safeguarding of proprietary information still relies on the successful implementation of traditional physical security efforts, coupled with electronic security, and good employee training. We will not go into the specifics of physical security here, but it may be useful to highlight a few less traditional aspects of physical protection before looking at electronic measures.

Physical measures. Security professionals should consider how crime prevention through environmental design (CPTED) practices can be applied to information protection. The security team can consider where rooms that will house critical departments, such as finance, should be located or where the company should place meeting rooms in which strategic planning discussions will take place. By doing so, they can make it easier to create a safety zone for critical business activities or confidential discussions of issues such as mergers and acquisitions. And when conducting an analysis of existing proprietary protection procedures, security managers should ask whether nonemployees can gain access to the offices of these departments.

When EES relocated its senior management, CPTED principles were incorporated into the design, with security working closely with the interior designers and business owners. The result was increased protection for proprietary information in addition to overall improvements in executive protection. For example, the mergers and acquisitions department was placed away from high-traffic areas and away from the main entryways. Also, the receptionist was positioned to have a clear view of the lobby area.

Labeling. Another consideration is how to mark information so that employees know it requires a particular level of protection. Technology can play a role in this arena. At EES, the IT department created, at the author's request, templates for all relevant computer applications. For example, using a Microsoft Office template, an employee could select "Confidential" from a drop-down list when creating a new document. The classification labeling would already be included in the document. The templates make it easy for employees to label data, and they ensure consistent labeling throughout the company.

Retention and destruction. Another aspect of physical protection is the retention and destruction process. Most companies have developed document retention schedules. They then outsource the tasks of storage and eventual destruction of information according to the schedule. A close review of these procedures and of the suppliers should be undertaken as a part of the information security analysis to ensure that all material containing proprietary information, whatever the medium, is appropriately destroyed.

For instance, as mentioned previously, office paper often is not shredded before being sent through the recycling process. Security managers must conduct due diligence on contractors activities to see that the paper is handled properly. Several companies that specialize in document destruction will certify that the material has been shredded before being sent to the recycling plant. Using one of these companies will significantly reduce the possibility that proprietary information will be released.

Electronic measures. The greatest threats to proprietary information lie in the electronic realm. The first step in evaluating this risk is to review how the proprietary information is generated within and used by the IT systems.

The key point is to review where the most sensitive information is processed and stored and how it is transmitted. The review should involve the employees who work with the information because they understand its sensitivity best. The review should attempt to identify vulnerabilities in

the IT systems that would permit entities without a business need-to-know to access the information.

Backup and recovery. Backup and recovery procedures should be scrutinized. Some information might be so sensitive that it is excluded from these routine processes. If so, the company must ensure that an appropriate backup and recovery procedure is in place; otherwise, a failure might mean that vital data cannot be recovered.

Audits. Standard business audits are another tool for examining IT vulnerabilities. At EES, information protection is a component of the company's annual external audit of its business units. Auditors look at how each unit identifies sensitive information and vulnerabilities and how it manages them.

Security products. One problem is that few business standards in the IT arena exist. The "Common Criteria" (ISO 15408, "Evaluation Criteria for Information Technology Security") provides requirements for evaluating security products and systems. A product will be evaluated by an independent lab to determine whether it meets a certain level of protection, based on factors such as security objectives and how the equipment will be used. Though most corporations do not have a need for formally evaluated products, some companies have sensitive information that warrants a particular level of protection. For instance, companies providing PKI seek strong protection for the computers holding digital certificates. However, for most companies, security is subordinate to return on investment; thus, cost-benefit figures govern whether these products are purchased.

Collaboration. Though the IT department is typically responsible for the technical aspects of ensuring the confidentiality, integrity, and availability of information systems, security managers must work with their colleagues in IT to provide balanced policies and an understanding of what is proprietary and needs protection. By collaborating to develop comprehensive policies, the security and IT departments can work from a common set of guidelines.

Two ways of accomplishing this collaboration are by combining physical and IT protection efforts into one department or by creating one entity accountable for ensuring that both departments' protection policies are consistent and woven together to present a unified effort. At EES, the two groups are separate, but the oversight of policies resides with the author, who works closely with the chief information officer and other business leaders to make sure the security processes put in place are consistent with EES's business needs.

Such a collaborative effort presents a strong deterrent to individuals attempting to circumvent the protection process. It also maximizes the protection budget by identifying potential overlaps or mismatches between physical and IT protection. For example, the IT department might invest in robust servers to protect sensitive information that meets the Common Criteria standards, yet the physical security at the data center may not be adequate. Conversely, the data center may be protected like Fort Knox, but the passwords for the servers may be weak.

Employee issues. The final procedural step to be addressed concerns employee policies and training. At EES, this portion of the protection process begins before an employee is hired. The offer package includes a copy of the company's conduct of ethics booklet, which addresses proprietary information; a certificate of compliance for the applicant to read and sign; and an offer letter stating that the offer is contingent on the applicant signing the compliance certificate. These efforts are in addition to standard preemployment background checks. After the applicant is hired, the employee orientation session reinforces the importance EES places on the protection of intellectual property.

During employment, employees receive regular refresher training, and at their annual performance review, they restate their understanding and compliance with the conduct of ethics by signing a statement printed on the review form. Additional information is provided during leadership and

management training and at various educational events over the year. These refresher events, though they require considerable effort by the company, are critical to the success of a protection program.

EAPs. Awareness training is one way to ensure that employees fulfill that role. But whether employees reveal or protect intellectual property often comes down to their loyalty to the company and how they believe their employer has treated them. Employees who feel disenfranchised, for whatever reason, are more likely to reveal proprietary information or to be easy marks for competitive intelligence professionals seeking to exploit human weaknesses to access sensitive information.

For this reason, information protection professionals should encourage employees to use the company's employee assistance program (EAP). The program offers counseling in drug and alcohol abuse, financial responsibility, and interpersonal relationships. A viable EAP program lets employees know the company cares about them, which might be a deciding factor when an employee has to choose between protecting the company's intellectual property and revealing information. It is another tool a company can use to help safeguard proprietary information.

If companies do not have an EAP, other options include working with the human resources department, for instance, to review the medical benefits program and determine whether drug and alcohol counseling is covered. Also, some companies conduct in-house financial programs to teach employees about basic checking accounts, budgeting, loans, credit cards, and so forth.

These programs help employees avoid personal problems and, therefore, make them less susceptible to competitive intelligence practitioners' techniques.

Rewards. In addition to having good procedures, companies must reward the people who assist their proprietary information protection program: The entire company must buy in to the security process. At the very least, each incident reported should be acknowledged with a quick e-mail or telephone call thanking the person for his or her participation in the protection program. The company may also want to have some formal corporate recognition program tied to information protection efforts.

In addition, most corporations track various statistics that can be developed and used so that employees are constantly reminded of protection efforts. For instance, the author tracks the use of shred bins at EES, reporting monthly on how many were emptied and the cost. The objective is to show employees the increased acceptance of this destruction method and the volume of information now being appropriately destroyed.

Often, greater time must be spent in protecting proprietary information during the termination process than the hiring process. At EES, employees leaving the company are provided further guidance regarding their obligations to protect intellectual property.

Security professionals must continue to develop new ways of protecting proprietary information. Challenges on the horizon--including advances in telecommunications, the impact of greater use of the Internet in businesses, and an increasingly mobile workforce--require that companies continually adapt their information protection strategies to ensure that there isn't a shadow of a doubt about who knows the company's secrets.

Pete van de Gohm, CPP, is director of information asset protection for Enron Energy Services Inc. He is a member of ASIS.

NATURE OF THE RISK

RISKS TO PROPRIETARY INFORMATION fall generally into four major categories: verbal, visual, physical, and electronic.

Verbal. One of the greatest risks to proprietary information is that employees will openly discuss it through conversations they consider private without realizing that they are in public forums where others can overhear them. For example, the author heard from another security practitioner about an incident in which employees were celebrating too loudly on an airplane about their new marketing campaign and how it was going to drive their competitor out of the market. They then watched in

horror as the competitor's security director, who was on the same flight, picked up the phone on board and called his CEO to outline their new plan.

Competitive intelligence professionals often take advantage of the naivete of employees and their willingness to talk in public places with each other or to talk business with newfound "friends." For example, professionals charged with collecting intelligence about competitors have been known to purposely join the same gym as one of their competitors' executives in an attempt to elicit information.

Lunchtime at local restaurants provides another great opportunity to learn what's happening at a company; intelligence practitioners can go to known hangouts and listen to the conversations around them. And employees are also often subject to elicitation calls; individuals trained in "human engineering" know just what to say to get untrained staff to reveal proprietary information on the phone.

Visual. Visual risks to proprietary information are also numerous. For example, critical information is often left on office whiteboards after planning sessions or marketing presentations without any thought as to who might walk into the room next and see those notes. The author knows of one company that had a strategy meeting the day before closing a multimillion-dollar deal. The meeting lasted into the night, and the board was covered with pricing information, negotiation hard points, financial risk, and other critical data needed to close the deal. When the potential customer's representatives arrived early for the meeting the next morning, an assistant walked them into that particular conference room and left them alone for 30 minutes. When the team came in to conduct the negotiations, the deal had already been lost.

Visual risks to information take some creative forms, because competitive intelligence professionals aggressively seek out opportunities to retrieve information through visual means. In one case, two senior executives from competing companies had been holding secret discussions on a possible merger. A third competitor had heard rumors and learned that a decision was going to be made when the two executives met for dinner. The third company learned the location of the restaurant, evaluated the possible courses of action, and hired two lip readers to "listen in" on the conversation by watching and recording what was said.

Many other forms of creative observation could be categorized as visual risks. For example, corporate intelligence practitioners trying to determine what a competitor is doing might count railcars or even measure the compression of the rust on the rails to determine how full the cars are.

Physical. Physical risks to proprietary information take several forms. The simplest is that lax visitor controls can lead to unauthorized persons walking through facilities without an escort, making it easy for anyone to look for security weaknesses or gather intelligence and then walk out unobserved. Other physical risks may involve attempts to defeat access controls or steal laptops. More sophisticated intelligence gathering efforts may also be used, such as when visitors to pharmaceutical companies apply a sticky substance to their shoes so that they can pick up dust and analyze it to determine its chemical composition.

Physical risks can also arise from the careless disposal of materials. Early drafts of sensitive memos might be tossed into recycling bins, and trash companies may not securely transport the material or shred it before mailing it over to the recycler.

Electronic. While verbal, visual, and physical risks to information date back to the beginning of knowledge itself, the computer age has brought with it the greatest new risk to a company's proprietary data. It is that today's proprietary information increasingly resides as electronic bits and bytes within the company's networked computer system.

The electronic environment is full of exposures. In simple terms, if a company's computer network is connected to the outside world, as most now are, that system can be hacked into from anywhere in the world.

While no perfect safeguards exist, the most common problem is that

companies do not properly configure their systems to close known loopholes and monitor for signs of unauthorized entry. Hackers constantly scan networks worldwide looking for misconfigured systems they can exploit. Almost anyone can use sophisticated programming tools to analyze a system for vulnerabilities. These attacks are delivered using back doors, trusted links, the Internet, and insiders.

Electronic means can often be used to circumvent a company's physical protections. For instance, the increased use of computers in telephony raises the question of whether a company's telephone switch is electronically isolated from the information network. Other concerns include what is posted on the company's Web page and whether employees are educated on the use of online chat rooms, stock message boards, and so on, both at work and at home.

Imagine that an employee gets involved in "cheerleading" company stock online and in doing so reveals future plans that are not publicly available. In addition to the loss of proprietary information, there may be Securities and Exchange Commission violations to contend with.

Security managers should also be concerned about who is connecting to the **company**'s networks, including the corporate intranet. With the growing use of consultants and **service providers** who need access to the intranet as part of their jobs, proprietary information is at higher **risk**.

Management should **determine** whether different business units meet a common minimum standard for security or whether one can be exploited against another. In a multidivision, decentralized **company**, weaknesses in one division's IT infrastructure might be exploited to penetrate another's computers.

COPYRIGHT 2001 American Society for Industrial Security

Company Names: Enron Energy Services Inc.--Safety and security measures

Industry Codes/Names: BUSN Any type of business; ENG Engineering and Manufacturing; LAW Law

Descriptors: Management information systems--Safety and security measures; Information

management--Technique; Security services industry--Services; Electric utilities--Safety and security measures

Geographic Codes: 1USA United States

Product/Industry Names: 9916500 (Security Management); 7393000 (Security Services); 4910000 (Electric Utilities)

Product/Industry Names: 7382 Security systems services; 4911 Electric services

NAICS Codes: 56161 Investigation, Guard, and Armored Car Services; 2211 Electric Power Generation, Transmission and Distribution

File Segment: TI File 148

3/9/31 (Item 31 from file: 16)

08952621 ? ?Supplier Number: 77741816

LabOne, Inc. to Acquire Osborn Group, Inc. From ChoicePoint, Inc.

Business Wire , p 0033

August 31 , 2001

Language: English ? ?**Record Type:** Fulltext

Document Type: Newswire ; Trade

Word Count: 1135

Text:

Business Editors

LENEXA, Kan.--(BUSINESS WIRE)--Aug. 31, 2001

LabOne, Inc. (Nasdaq:LABS) :

Acquisition Further Strengthens LabOne's Position as a Leading Provider of Cost-Effective and Competitive Risk Assessment Services to the Life Insurance Industry

LabOne Receives Financing Facility Totaling \$80 Million From Welsh, Carson, Anderson & Stowe

LabOne, Inc. (Nasdaq:LABS) today announces the acquisition of Osborn Group, Inc., Olathe, Kan., a wholly owned subsidiary of ChoicePoint, Inc. (NYSE:CPS), for \$49 million in cash.

Osborn Group is a leading provider of risk assessment services to the life insurance industry, with approximately \$37 million in annual revenue.

LabOne is a leading provider of risk assessment services to the insurance industry, laboratory testing and other services for the healthcare industry and substance abuse testing services for employers. Its risk assessment services include high-quality laboratory testing, investigative services, teleunderwriting, underwriting case management, and paramedical examinations. These services provide critical data for the underwriting of insurance policies and claims processing. With this acquisition, LabOne will have a combined revenue base of \$250 million and will annually perform laboratory testing for approximately 10 million individuals for its risk assessment, healthcare and substance abuse testing clients. Due to operational overlap, LabOne expects to generate \$5 to \$10 million of annual cost savings from the acquisition.

"We are excited about the opportunity that this acquisition provides for LabOne and Osborn customers, employees, and our shareholders," said W. Thomas Grant II, the chairman, president and CEO of LabOne. "The combination of these two companies will allow us to utilize excess laboratory capacity and integrate our services and information technology platforms providing a broader array of services for our customers."

Welsh, Carson, Anderson & Stowe (WCAS) will invest a total of \$50 million in preferred equity and subordinated debt in LabOne to fund the acquisition and related expenses of the transaction. In addition, WCAS maintains a right of first refusal to invest an additional \$30 million in LabOne to fund future acquisitions. WCAS will invest \$14 million in convertible preferred equity, \$21 million in preferred equity, and \$15 million in subordinated debt. The convertible preferred equity will be a Series B Convertible Preferred Stock, which will have a conversion price of \$8.32 and a coupon of 8.0%, payable in kind. The preferred equity will have a coupon of 18%, payable in kind, and, upon receipt of shareholder approval, will convert to Series B Convertible Preferred Stock. The subordinated debt will pay a cash coupon of 11%. In addition, WCAS will receive 350,000 warrants with a nominal strike price.

LabOne will immediately seek a board-recommended vote from its shareholders to convert the preferred equity to Series B Convertible Preferred Stock, which will allow WCAS to directly nominate or elect three members and jointly nominate another member of a newly constituted seven-member board of directors. Of the three WCAS board members, up to two may be directly elected by WCAS and the other(s) may be nominated by WCAS for election by the common shareholders. Upon shareholder approval, WCAS will hold approximately 29% of the outstanding equity of the Company. Additionally, the executive committee of the new board of directors will be composed of W. Thomas Grant II, James R. Seward, currently a director, and Paul B. Queally, WCAS.

"We are excited to have a world-class firm like Welsh, Carson, Anderson, & Stowe as our partner," said Mr. Grant. "The firm's

extensive healthcare investing experience, market credibility, and significant capital resources will greatly enhance our ability to execute our long-term growth strategy. They have proven to be excellent partners in the building of healthcare companies and creating value for all shareholders."

"We are very enthusiastic about the opportunity to partner with LabOne in this transaction, which creates an exciting and well-positioned services **company**," said a WCAS spokesperson. "LabOne is already a preeminent provider of **risk assessment** services and this transaction will enhance its strategic position and create additional growth opportunities."

About LabOne, Inc.

LabOne is a national laboratory testing and information **service provider** with three divisions:

risk assessment services, healthcare and substance abuse testing. The **risk assessment** division, with its ExamOne and SBSI subsidiaries, provides proprietary information technologies CaseView and LabOne NET(TM), and CaseOne case management service, to life and health insurance companies. These services include laboratory test results, paramedical examinations, attending physician statements, motor vehicle reports, background inspections and personal history interviews. LabOne's healthcare division provides medical diagnostic testing and related services to physicians and managed care organizations, and to benefit providers through its unique Lab Card(R) employee benefit program. The healthcare division's disease management reporting is specifically designed to provide managed care clients with HEDIS data necessary for their NCQA accreditation. The company's substance abuse testing division provides drug testing services to Fortune 1000 employers and markets Intercept(TM), the oral fluid drug test, in the workplace drug testing market. The company's web site is located at www.LabOne.com.

About Welsh, Carson, Anderson, & Stowe

Welsh, Carson, Anderson, & Stowe, a New York-based private equity firm founded in 1979, has organized 12 partnerships with total capital of \$12 billion. WCAS focuses on three industries: telecommunications, information services and healthcare. Some of WCAS' healthcare portfolio companies include Triad Hospitals Inc., Pedatrix Medical Group Inc., Select Medical Corp., MedCath Corporation, Fresenius Medical Care AG, and United Surgical Partners Inc.

Forward-Looking Statements

This press release contains "forward-looking statements," including, but not limited to, assumptions, estimates and projections concerning cost savings and revenue and earnings growth. Forward-looking statements often can be identified by the use of forward-looking terminology, such as "believes," "expects," "may," "will," "should," "could," "intends," "plans," "estimates," "anticipates," variations thereof, or similar expressions. These statements are not guarantees of the future performance, and the Company's future results of operations, financial condition and business operations may differ materially from those expressed in these forward-looking statements. Many factors could cause actual results to differ materially from those that may be expressed or implied in such forward-looking statements, including, but not limited to, the ability to achieve labor and other cost reductions, the ability to integrate the laboratory and other operations of the companies, the ability to retain customers of Osborn, general economic conditions and other factors detailed from time to time in the Company's reports and registration statements filed with the Securities and Exchange Commission. Investors are cautioned not to put undue reliance on any forward-looking statement.

Publisher Name: Business Wire
Company Names: *Lab Holdings Inc.; Welsh, Carson, Anderson and Stowe
Geographic Names: *1USA (United States)
Product Names: *6726000 (Venture Capital Companies); 8516000 (Laboratories)
Industry Names: BUS (Business, General); BUSN (Any type of business)
SIC Codes: 6799 (Investors, not elsewhere classified); 8730 (Research and Testing Services)
NAICS Codes: 52391 (Miscellaneous Intermediation); 5417 (Scientific Research and Development Services)
Special Features: LOB; COMPANY

3/9/32 (Item 32 from file: 16)
08912820 ? ?Supplier Number: 77198808

Privacy Panel Eyes New Notices.(Privacy Working Group to draft consumer model notices)(Brief Article)

Insurance Chronicle , v 12 , n 33 , p 2

August 13 , 2001

Language: English ? ?Record Type: Fulltext

Article Type: Brief Article

Document Type: Newsletter ; Trade

Word Count: 563

Text:

While the convoluted palaver of the torrent of privacy notices flooding consumers' mailboxes may make great fodder for late-night comedians, insurance regulators think it is no laughing matter.

With that in mind the newly revived Privacy Working Group has announced the formation of a task force to draft consumer model notices.

"It is critical that consumers know how to exercise their privacy rights so that they will feel safe in the knowledge that their privacy is protected in accordance with the law," said Gregory Serio, the New York commissioner who co-chairs the panel.

He said the panel will draft a model privacy notices that are "understandable, while ensuring operational uniformity which will eliminate needless duplication."

Task force members will be asked to make recommendations to the Privacy Working Group during the National Association of Insurance Commissioners fall meeting in Boston.

"The task force's review is needed more than ever to demystify the privacy issue and the complexities of the privacy notices consumers are now receiving," said co-chair Kathleen Sebelius, who also serves as NAIC president and Kansas commissioner.

Industry representatives reacted warily to revisiting many of the issues that were dealt with last year when the panel was in the process of approving the model regulation.

Rey Becker, vice president of the Alliance of American Insurers urged the NAIC to exercise caution.

"Last year during the NAIC's development of the model regulation, the Alliance repeatedly warned that the volume and level of detail required for privacy notices, as well as the unnecessarily broad universe

of required recipients, would backfire. The model included some limited boilerplate language example, which many insurers used in good faith. The time for the NAIC to have drafted more comprehensive boilerplate was before insurers spent millions of dollars, not after," Becker said.

The September deadline also aroused some concern as a "rushing" of the process.

"Federal agencies are still working on affiliate disclosure opt-out rules under the Fair Credit Reporting Act. Surely, this can wait until we see what the Feds are planning to require from banks, securities and insurers alike," he said.

Kathleen Jensen, senior counsel for the National Association of Independent Insurers, will serve on the task force. She took a more sanguine view of the revision process.

"It is not clear yet how the drafts will ultimately affect the industry. I plan to recommend that the drafts developed not be made mandatory but rather be available to any company that needs assistance in developing or reworking a privacy notice," she said. "Possibly an upside for a company utilizing the 'model notice' would be that the notice would be a safe harbor for that **company**."

In a related move the Working Group released for public comment a draft of the NAIC Model Regulation for Safeguarding Consumer Information. The model includes steps to **assess**, manage and control **risk** and oversees **service provider** arrangements and adjusts the program. Violations would be considered unfair trade practices.

Becker noted that in regard to the aspect of controlling service provider contracts, no additional time for compliance is given to insurers, unlike comparable federal regulations that provide two years.

Copyright c 2001 Thomson Financial. All Rights Reserved.

COPYRIGHT 2001 Thomson Financial Inc.

COPYRIGHT 2001 Gale Group

Publisher Name: Thomson Financial Inc.

Event Names: *360 (Services information); 940 (Government regulation (cont))

Geographic Names: *1USA (United States)

Product Names: *6300000 (Insurance); 9101216 (Privacy)

Industry Names: BUSN (Any type of business); INSR (Insurance and Human Resources)

SIC Codes: 6300 (INSURANCE CARRIERS)

NAICS Codes: 524 (Insurance Carriers and Related Activities); 92219 (Other Justice, Public Order, and Safety Activities)

Special Features: INDUSTRY

3/9/33 (Item 33 from file: 16)

08864731 ? ?Supplier Number: 76989060

LabOne Reports Second-Quarter Results.

Business Wire , p 0170

August 6 , 2001

Language: English ? ?Record Type: Fulltext

Document Type: Newswire ; Trade

Word Count: 939

Text:

Business Editors & Medical Writers

LENEXA, Kan.--(BUSINESS WIRE)--Aug. 6, 2001

LabOne, Inc. (Nasdaq:LABS) today reported record revenues of \$56.0 million for its second quarter ended June 30, 2001, an increase of \$16.8 million or 43% over the second quarter 2000.

Risk assessment services revenues increased by \$11.3 million (44%), healthcare increased by \$3.3 million (40%) and substance abuse testing (SAT) increased by \$2.2 million (41%).

The company reported net income of \$0.6 million, or \$0.06 per share, compared to net income of \$0.4 million, or \$0.03 per share, for the second quarter 2000. These results include a \$0.6 million pretax charge to amortization expense (\$0.4 million after income taxes) related to the termination of an exclusive product distribution agreement offset by a favorable income tax adjustment of \$0.4 million. EBITDA for the quarter increased 17% to \$5.1 million compared to \$4.3 million last year.

"We continue to realize substantial growth in revenues and increased laboratory testing volumes across all service lines," said W. Thomas Grant II, chairman, president and CEO of LabOne. "We believe that these increases, combined with our commitment to improve efficiencies through automation and advanced technology solutions, will translate into meaningful EBITDA and earnings growth."

"Our risk assessment services division continues to grow through the expansion of other requirements gathering services and our paramedical examinations. The revenue growth for the second quarter includes a 140% increase in paramedical revenues compared to last year. The healthcare division continues to benefit from increased adoption of the Lab Card(R) product and our regionally focused physician marketing initiatives. The substance abuse testing division's client base continues to expand, particularly with the increase in oral fluid-based testing."

LabOne will make available additional audio comments about the second-quarter results from W. Thomas Grant II, John W. McCarty, executive vice president and CFO, and Michael J. Asselta, executive vice president and COO, on a dial-in conference line. To hear the conference call, dial 877/222-9794 at 10 a.m. Eastern time, August 6. The call will remain available at this number for an unspecified period and will be available on the **company**'s web site at www.LabOne.com.

About LabOne, Inc.

LabOne is a national laboratory testing and information **service provider** with three divisions: **risk assessment** services, healthcare and substance abuse testing. The **risk assessment** division, with its ExamOne and SBSI subsidiaries, provides proprietary information technologies CaseView and LabOne NET(TM), and CaseOne case management service, to life and health insurance companies. These services include laboratory test results, paramedical examinations, attending physician statements, motor vehicle reports, background inspections and personal history interviews. LabOne's healthcare division provides medical diagnostic testing and related services to physicians and managed care organizations, and to benefit providers through its unique Lab Card(R) employee benefit program. The healthcare division's disease management reporting is specifically designed to provide managed care clients with HEDIS data necessary for their NCQA accreditation. The company's substance abuse testing division provides drug testing services to Fortune 1000 employers and markets Intercept(TM), the oral fluid drug test, in the workplace drug testing market. The company's web site is located at www.LabOne.com.

Forward-Looking Statements

This press release contains "forward-looking statements," including, but not limited to, projections and statements of revenues, EBITDA and earnings growth. Forward-looking statements often can be identified by the use of forward-looking terminology, such as "believes," "expects," "may," "will," "should," "could," "intends," "plans," "estimates," "anticipates," variations thereof, or similar expressions. The Company's future results of operations, financial condition and business operations may differ materially from those expressed in these forward-looking statements. Many factors could cause actual results to differ materially from those that may be expressed or implied in such forward-looking statements, including, but not limited to, the volume and pricing of laboratory tests performed by LabOne, competition, the extent of market acceptance of the Company's healthcare and substance abuse testing and related services, changes in government regulations and attitude toward regulation of the Company's services, general economic conditions and other factors detailed from time to time in the Company's reports and registration statements filed with the Securities and Exchange Commission. Investors are cautioned not to put undue reliance on any forward-looking statement.

Selected Financial Data

	Quarter ended		Six months ended			
	June 30,	% Increase	June 30,	% Increase		
2001	2000	(Decrease)	2001	2000		
-----	-----	-----	-----	-----		
Sales	\$56,015,152	39,161,019	43%	\$106,059,955	79,742,069	33%
Net						
earnings	\$604,012	363,620	66%	\$1,001,021	781,237	28%
Basic earnings						
per common						
share	\$ 0.06	0.03		\$ 0.09	0.07	
Diluted earnings						
per common						
share	\$ 0.06	0.03		\$ 0.09	0.07	
Total assets				\$131,883,709	119,365,594	
Working capital				\$ 27,281,514	18,926,714	

Consolidated Balance Sheets

	June 30, 2001	December 31, 2000
ASSETS	-----	-----
Current assets:		
Cash and cash equivalents	\$3,061,587	\$1,571,734
Accounts receivable -- trade, net of allowance for doubtful accounts of \$3,043,821 in 2001 and \$4,406,612 in 2000	38,805,511	33,916,445
Income taxes receivable	--	2,065,750
Inventories	4,293,689	3,276,794
Prepaid expenses and other current assets	3,681,656	3,948,390
Deferred income taxes	2,057,088	2,740,824
Total current assets	51,899,531	47,519,937
Property, plant and equipment	92,775,500	89,244,999
Less accumulated depreciation	47,176,191	43,936,028
Net property, plant and equipment	45,599,309	45,308,971

Other assets:		
Intangible assets, net of accumulated amortization	34,148,759	34,728,755
Bond issue costs, net of accumulated amortization of \$49,492 in 2001 and \$40,758 in 2000	142,654	151,388
Deposits and other assets	93,456	270,124
	-----	-----
Total assets	\$131,883,709	\$127,979,175
	=====	=====
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$15,506,070	\$14,516,703
Accrued payroll and benefits	5,410,192	4,457,136
Other accrued expenses	1,244,163	1,714,033
Income taxes payable	270,296	--
Other current liabilities	261,440	279,228
Notes payable	50,000	81,250
Current portion of long-term debt	1,875,856	1,878,845
	-----	-----
Total current liabilities	24,618,017	22,927,195
Deferred income taxes -- noncurrent	1,228,845	1,663,669
Long-term payable	1,274,415	1,274,415
Long-term debt	38,417,297	37,402,934
	-----	-----
Total liabilities	65,538,574	63,268,213
Stockholders' equity:		
Preferred stock, \$.01 par value per share; 3,000,000 shares authorized, none issued	--	--
Common stock, \$.01 par value per share; 40,000,000 shares authorized, 13,050,020 shares issued	130,500	130,500
Additional paid-in capital	31,188,140	31,609,884
Equity adjustment from foreign currency translation	(830,132)	(832,280)
Retained earnings	70,235,905	69,234,884
	-----	-----
	100,724,413	100,142,988
Less treasury stock of 2,271,710 shares in 2001 and 2,324,671 shares in 2000	34,379,278	35,432,026
	-----	-----
Total stockholders' equity	66,345,135	64,710,962
	-----	-----
Total liabilities and stockholders' equity	\$131,883,709	\$127,979,175
	=====	=====

Consolidated Statements of Earnings

	Quarter Ended June 30,		Six Months Ended June 30,	
	2001	2000	2001	2000
Sales	\$ 56,015,152	39,161,019	\$106,059,955	79,742,069
Cost of sales	-----	-----	-----	-----
Cost of sales expenses	38,892,963	25,186,182	73,237,381	51,231,233
Depreciation expense	695,656	594,762	1,341,467	1,133,067
	-----	-----	-----	-----

Total cost of sales	39,588,619	25,780,944	74,578,848	52,364,300
Gross profit	16,426,533	13,380,075	31,481,107	27,377,769
Selling, general and administrative				
Selling, general and administrative expenses	12,053,901	9,646,865	23,054,458	20,051,852
Depreciation expense	1,197,860	1,008,215	2,392,049	1,937,806
Amortization expense	1,686,373	1,047,061	2,739,614	2,083,420
Total selling, general and administrative	14,938,134	11,702,141	28,186,121	24,073,078
Earnings from operations	1,488,399	1,677,934	3,294,986	3,304,691
Interest expense	(561,995)	(602,866)	(1,212,228)	(1,098,145)
Interest income and other	53,441	15,222	148,399	40,397
Earnings before income taxes	979,845	1,090,290	2,231,157	2,246,943
Income tax expense	375,833	726,670	1,230,136	1,465,706
Net earnings	\$ 604,012	363,620	\$ 1,001,021	781,237
Basic earnings per common share	\$ 0.06	0.03	\$ 0.09	0.07
Diluted earnings per common share	\$ 0.06	0.03	\$ 0.09	0.07
Basic weighted average common shares outstanding	10,748,531	10,721,272	10,737,004	11,021,361
Effect of dilutive securities -- stock options	9,969	69	5,200	1,282
Diluted weighted average common shares outstanding	10,758,500	10,721,341	10,742,204	11,022,643

COPYRIGHT 2001 Business Wire

COPYRIGHT 2001 Gale Group

Publisher Name: Business Wire

Company Names: *LabOne Inc.

Geographic Names: *1USA (United States)

Product Names: *7397000 (Testing Laboratories)

Industry Names: BUS (Business, General); BUSN (Any type of business)

SIC Codes: 8734 (Testing laboratories)

NAICS Codes: 54138 (Testing Laboratories)

Ticker Symbols: HORL

Special Features: LOB; COMPANY

3/9/34 (Item 34 from file: 16)
08826983 ? ?Supplier Number: 76722879

LabOne to Announce Second-Quarter Results.

Business Wire , p 0173

July 24 , 2001

Language: English ? ?Record Type: Fulltext

Document Type: Newswire ; Trade

Word Count: 439

Text:

Business Editors

LENEXA, Kan.--(BUSINESS WIRE)--July 24, 2001

LabOne, Inc. (Nasdaq: LABS) announced today that it will report second-quarter financial results before the open of the market August 6, 2001.

LabOne will make available additional audio comments about the second-quarter results from W. Thomas Grant II, chairman, president and CEO; John W. McCarty, executive vice president and CFO; and Mike Asselta, executive vice president and COO, on a dial-in conference line. To hear the conference call, dial 1-877/222-9794 at 10 a.m. Eastern, August 6. Following the call, the comments will be available on a dial-in basis at the same toll free number and as a download file from the **company's** web site at www.LabOne.com.

About LabOne, Inc.

LabOne is a national laboratory testing and information **service provider** with three divisions: insurance services, healthcare and substance abuse testing. The **risk assessment** division, with its ExamOne and SBSI subsidiaries, provides proprietary information technologies CaseView and LabOne NET(TM), and CaseOne case management service, to life and health insurance companies. These services include laboratory test results, paramedical examinations, attending physician statements, motor vehicle reports, background inspections and personal history interviews. LabOne's healthcare division provides medical diagnostic testing and related services to physicians and managed care organizations, and to benefit providers through its unique Lab Card(R) employee benefit program. The healthcare division's disease management reporting is specifically designed to provide managed care clients with HEDIS data necessary for their NCQA accreditation. The company's substance abuse testing division provides drug testing services to Fortune 1000 employers and markets Intercept(TM), the oral fluid drug test, in the workplace drug testing market. The company's web site is located at www.LabOne.com.

Forward-Looking Statements

This press release may contain "forward-looking statements," as well as historical information. Forward-looking statements include projections, statements of plans and objectives, statements of future economic performance and statements of assumptions underlying such statements. Forward-looking statements involve known and unknown risks and uncertainties. Many factors could cause actual results to differ materially from those that may be expressed or implied in such forward-looking statements, including, but not limited to, the volume and pricing of laboratory tests performed by LabOne, competition, the extent of market acceptance of the Company's testing services in the healthcare and

substance abuse testing industries, general economic conditions and other factors detailed from time to time in the Company's reports and registration statements filed with the Securities and Exchange Commission.

COPYRIGHT 2001 Business Wire

COPYRIGHT 2001 Gale Group

Publisher Name: Business Wire

Company Names: *LabOne Inc.

Geographic Names: *1USA (United States)

Product Names: *7397000 (Testing Laboratories)

Industry Names: BUS (Business, General); BUSN (Any type of business)

SIC Codes: 8734 (Testing laboratories)

NAICS Codes: 54138 (Testing Laboratories)

Ticker Symbols: HORL

Special Features: LOB; COMPANY

3/9/35 (Item 35 from file: 20)

16310676

United Stationers Inc. Reports First-Quarter Sales and Earnings

PR NEWSWIRE

April 23, 2001

Journal Code: WPRW ? Language: English ? Record Type: FULLTEXT

Word Count: 1073

DES PLAINES, Ill., April 23 /PRNewswire Interactive News Release/ -- United Stationers Inc. (Nasdaq: USTR) reported earnings per share of \$0.64 for its first quarter ended March 31, 2001, compared with \$0.69 in the first quarter of 2000. Net income for the latest three months was \$21.6 million, down from \$23.9 million in the comparable prior-year quarter. Net sales for the period reached a record \$1.1 billion, up 6.5% compared with sales of \$995 million for the first three months of 2000.

Randall W. Larrimore, president and chief executive officer, said, "We experienced moderate sales growth in our core business due to the softer economy, one fewer workday in the quarter, and comparisons against extremely strong growth in the prior year.

"The primary difference in income from operations between the first quarters of 2000 and 2001 was a \$6.8 million loss for The Order People in the current quarter. Excluding this, the company would have achieved earnings per share of \$0.77, representing an 11.6% increase over the first quarter of the prior year.

"We remain confident that there is a long-term market opportunity for the fulfillment and customer relationship management (CRM) services offered by The Order People. However, we are taking actions to lower its overall cost structure to reflect the longer sales cycle and slower ramp-up of revenues. In addition, we've named Mark Hampton as President and Chief Operating Officer of The Order People. Mark brings a broad business perspective, after running a start-up operation for another company, and leading several business units during his time at United. Mark replaces

John Kennedy who resigned," added Larrimore.

"We will continue to examine The Order People's cost structure, making further adjustments as necessary. However, we expect it to post another operating loss of between \$6-7 million for the second quarter. We also continue to implement company-wide cost-reduction programs. While the near-term is challenging, we remain optimistic about our long-term growth potential," concluded Larrimore.

Conference Call

United Stationers will host a conference call on Tuesday, April 24, at 9:00 a.m. (Central Time) to discuss first quarter performance. To listen to the conference call, visit the investor relations section of the company's Website at <http://www.unitedstationers.com> at least 15 minutes before the call, and follow the instructions provided to ensure that the necessary audio application is downloaded and installed. This program is provided at no charge to the user. In addition, interested parties can access an archived version of the call, which will also be located on the investor relations section of United Stationers' Website, approximately two hours after the call's conclusion and for the following week.

Forward-looking Statements

With the exception of statements on historical events, the information presented in this news release contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. These statements involve risks and uncertainties that could cause actual results to differ materially from the information presented here. The **risks** and uncertainties affecting this release include, but are not limited to, **assessing** the market potential for third-party **service providers**, the timing of revenue generation, the ability of the **company** to quickly adjust the cost structure of The Order People and the success of The Order People and e-NITED, the integration of acquisitions, changes in end-users' demands for business products, customer credit risk, the effects of fluctuations in manufacturers' pricing, general economic conditions, and the highly competitive environment in which the company operates. A description of these and other factors that could affect the company's business are set forth in filings with the Securities and Exchange Commission including the company's latest 10-K and 10-Q. The company's SEC filings are readily available at <http://www.sec.gov> .

Company Overview

United Stationers Inc., with trailing twelve months sales of \$4.0 billion, is North America's largest distributor of business products and a provider of marketing and logistics services to resellers. Its integrated computer-based distribution system makes more than 40,000 items available to 20,000 resellers. United is able to ship products within 24 hours of order placement because of its 39 United Stationers Supply Co. regional distribution centers, 28 Lagasse distribution centers that serve the janitorial and sanitation industry, six Azerty distribution centers that serve computer supply resellers, three distribution centers that serve the Canadian marketplace and a dedicated distribution center serving clients of The Order People. Its focus on fulfillment excellence has given the company a 98% order fill rate, a 99.5% order accuracy rate, and a 99% on-time delivery rate. For more information, visit <http://www.unitedstationers.com>

The company's common stock trades on the Nasdaq National Market System under the symbol USTR and is included in the S&P SmallCap 600 Index. United Stationers Inc. and Subsidiaries Condensed Consolidated Statements of Income (in thousands, except per share data) (unaudited) For the Three Months Ended March 31, 2001 2000 Net sales \$1,059,842 \$ 994,883 Cost of goods sold 893,719 836,753 Gross profit 166,123 158,130 Operating expenses: Warehousing, marketing and administrative expenses 119,742 107,726 Income from operations 46,381 50,404 Interest expense, net 8,055 7,414 Other expense 2,484 2,646 Income before income taxes 35,842 40,344 Income taxes 14,229 16,420 Net income \$21,613 \$23,924 Net income per share - assuming

dilution \$0.64 \$0.69 Average number of common shares - assuming dilution
33,600 34,751 United Stationers Inc. and Subsidiaries Condensed
Consolidated Balance Sheets (dollars in thousands, except share data)
(unaudited) March 31, 2001 2000 ASSETS Current assets: Cash and cash
equivalents \$31,225 \$28,829 Accounts receivable, net 303,591 265,302
Inventories 635,129 583,089 Other current assets 23,264 23,469 Total
current assets 993,209 900,689 Property, plant and equipment, net 195,906
169,077 Goodwill, net 195,156 180,143 Other 22,205 18,115 Total assets \$
1,406,476 \$1,268,024 LIABILITIES AND STOCKHOLDERS' EQUITY Current
liabilities: Accounts payable \$363,762 \$337,857 Accrued liabilities 129,390
144,745 Current maturities of long-term debt 42,287 10,585 Total current
liabilities 535,439 493,187 Deferred income taxes 23,141 29,010 Long-term
obligations 353,425 315,100 Total liabilities 912,005 837,297 Stockholders'
equity: Common stock (voting), \$0.10 par value; authorized - 100,000,000
shares, issued - 37,213,207 shares in 2001 and 2000 3,721 3,721 Additional
paid-in capital 299,397 303,214 Treasury stock, at cost - 3,918,558 shares
in 2001 and 3,170,699 in 2000 (70,689) (48,395) Retained earnings 262,042
172,187 Total stockholders' equity 494,471 430,727 Total liabilities and
stockholders' equity \$1,406,476 \$1,268,024 MAKE YOUR OPINION COUNT - Click
Here <http://tbutton.prnewswire.com/prn/11690X55470873>

/CONTACT: Kathleen S. Dvorak, Sr. Vice President, Investor Relations
and Financial Administration, or Eileen A. Kamerick, Executive Vice
President, Chief Financial Officer, both of United Stationers Inc.,
847-699-5000/ 18:30 EDT

Copyright 2001 PR Newswire. Source: World Reporter (Trade Mark).

Company Names: United Stationers Inc

Descriptors: Sales; Marketing; Company News; Interim Results

Country Names/Codes: United States of America (US)

Regions: Americas; North America; Pacific Rim

3/9/36 (Item 36 from file: 610)

00498491 ? 20010412102B8149

SCENDIS' New Web-Based Training Modules Address Workplace Conflict and Harassment; Tough Economy, Low Morale Requires Increased Sensitivity

Business Wire

Thursday , April 12, 2001 ? 10:00 EDT

**Journal Code: BW ?Language: ENGLISH ?Record Type: FULLTEXT ?Document Type:
NEWSWIRE**

Word Count: 593

Text:

VIENNA, Va., Apr 12, 2001 (BUSINESS WIRE)
- SCENDIS, a multi-service strategic human resources consulting company and provider of corporate e-Learning products, unveiled two new Web-based training modules that address sensitive areas of employee behavior.

SCENDIS' "Responding to Conflict" and "Preventing Workplace Harassment" modules are the newest additions to the company's "Mastering Business

Skills" and "Managing Compliance" series.

"As today's workplace evolved, employees interact with co-workers from a wide range of ethnic and social backgrounds. While this growing diversity contributes to the richness of the workplace, it also opens the door for misunderstanding, discrimination or even harassment," says Karetta Hubbard, co-CEO of SCENDIS. "These undesirable behaviors create an uncomfortable work environment, reduce productivity, and can lead to employee litigation." Situations can get even more sensitive in a tough economy. With many companies experiencing layoffs and low morale, the need for cost-effective training programs that mitigate conflict and enhance working relationships increases.

This is especially true for companies with flat organizational structures, in which managers may not be available to intervene in situations that may involve conflict or harassment.

"With middle-management positions being eliminated at many companies in the current economic climate, the ability to deliver training over the Web in a way that requires a minimum of management's time offers flexibility and privacy benefits that traditional training programs can't deliver," says Lynne Revo-Cohen, co-CEO of SCENDIS.

"The 'Responding to Conflict' training helps organizations improve productivity and teamwork by demonstrating ways to respond constructively to emerging conflicts. It uses the proven three-step method of accept, understand and resolve." she adds. "With our 'Preventing Workplace Harassment' course, people learn how to recognize, and then avoid, actions that constitute--or may be perceived as--harassment."

With the new SCENDIS modules--as well as other elements of the "Mastering Business Skills" and "Managing Compliance" series--companies can have their own corporate introduction, human resource policies and procedures integrated into the SCENDIS programs.

Video clips of a company executive can underscore intimately the importance of the training and relate it to the company's specific corporate objectives.

The modules use a series of interactive video exercises with real life business scenarios and believable characters to train users to constructively respond to and deal with conflict and harassment. Users learn by self-discovery of information and by responding to situations and exploring their options.

As with other SCENDIS training programs, the new modules include both pre-surveys and post-training tests to let participants assess themselves before and after the training. The modules also provide training reports for management.

SCENDIS' Web-based training programs are powered by the company's ALEX(TM) technology platform, developed specifically for delivering online programs via the web. Reflecting the diverse nature of the workforce today, video sequences in the programs feature role-playing characters from a variety of ethnic and social backgrounds.

About SCENDIS

SCENDIS, formerly Hubbard & Revo-Cohen, is an intellectual capital service provider specializing in high-risk workplace issues. The company strategically integrates consulting expertise and technology to deliver the next wave of proactive Strategic Planning, Assessment, Skill Building and customized e-learning products to assist employers and talent in creating the workplace of choice. SCENDIS' technology product, powered by ALEX(TM), is a proven, highly sophisticated software platform with more than 100,000 users. Headquartered in the Washington, D.C. metropolitan area, SCENDIS was the winner of the Fairfax County Chamber of Commerce "Blue Diamond Award" for the best technology company of the year.

CONTACT: SCENDIS
Elizabeth Hubbard, 212/414-1960
ehubbard@scendis.com
by
RMR & Associates
Susan Yum, 301/217-0009, x40
syum@rmr.com

URL: <http://www.businesswire.com>

Copyright (c) 2001 Business Wire. All rights reserved.

Company Names: SCENDIS; Conflict; RMR & Associates; News On The Net

Product Names: CORPORATE; EDUCATIONAL; LABOUR RELATIONS; PERSONNEL MANAGEMENT; TRAINING

Event Names: LABOUR RELATIONS; MANAGEMENT PROCEDURES; PERSONNEL MANAGEMENT

3/9/37 (Item 37 from file: 610)

00496753 ? 20010410100B6385

TruSecure Delivers First and Only Web-Based Service for Central Management of Comprehensive Enterprise Security Efforts-TruSecure 2001 provides management console to oversee integrated program for continuous identification...

Business Wire

Tuesday , April 10, 2001 ? 10:30 EDT

Journal Code: BW ?Language: ENGLISH ?Record Type: FULLTEXT ?Document Type:

NEWSWIRE

Word Count: 713

Text:

TruSecure Delivers First and Only Web-Based Service
for Central Management of
Comprehensive Enterprise Security Efforts-TruSecure 2001 provides
management
console to oversee integrated program for continuous identification and
mitigation of security risks

RESTON, Va., Apr 10, 2001 (BUSINESS WIRE) -- TruSecure Corporation, the
leader
in information security assurance, today introduced the first service that
enables organizations to centrally manage an enterprise-wide program that
identifies risk to their critical IT assets, mitigates that risk, then
maintains an essential level of ongoing security "health." TruSecure 2001
leverages a patent-pending Web-based method for integrating people,
technology
and processes into a continuous, coordinated and prioritized risk
management
program.

"TruSecure 2001 empowers us to integrate the disparate aspects of our
security
work, thereby more effectively mitigating our risk," said Jeff Brewer, lead
security analyst at Fiserv in Atlanta, GA. "For the first time, we can
capture
a real return on our security management investment."

TruSecure 2001 assures ongoing information security in a preventive manner,
before threats become problems. Real-time updates to TruSecure's essential
security practices, accessible through the Web-based console, enable
organizations to effectively manage security in a constantly changing
environment. TruSecure's unique Object-Oriented Security Model creates a
more
accurate **enterprise risk assessment** and
determines the "right level" of
security controls by identifying the relationships between networks,
devices,
applications, people and physical locations. Unlike solutions offered by
other
managed **service providers** and consulting firms,
TruSecure 2001 is a
fixed-price, annualized subscription service that utilizes a patent-pending
automated software model and database to continuously map a customer's IT
infrastructure against a set of essential security practices. Once
TruSecure
practices are successfully implemented, the customer receives
industry-recognized certification, providing them confidence and assurance
that their mission-critical e-business systems and applications are
hardened
against "cyberthreats."

TruSecure 2001's console provides CIOs and chief security officers a
real-time
window into the organization's status and progress towards complying with

TruSecure's essential security practices. This Web-based interface provides layered views and drill-down capabilities from the enterprise to the subsidiary, division, department or individual device level.

"TruSecure's approach provides a systematic way to manage enterprise security that can be tailored to each customer's specific needs," said Peter Lindstrom, senior analyst with the Hurwitz Group. "In a sense, TruSecure is providing ongoing certification of an organization's security readiness."

TruSecure enhances traditional security methods by integrating all phases of a risk management program through a patent-pending Object-Oriented Security Model. This approach efficiently crafts a customized security program around the unique interactions between devices, users and physical locations that define an organization. Those phases are:

IDENTIFY - Inventory of critical assets through electronic scanning and interviews.

ASSESS - Assessment of risks, including risks from hacking, viruses and worms, physical threats, privacy issues, downtime and human factors.

PROTECT - Creation of a customized program of security controls to reduce identified risks, accessible through a Web-based management interface.

ASSURE - Maintenance of effective security program over time, through continual revalidation of security posture and constant monitoring of emerging risks.

"Many organizations struggle with the complexities of defining, prioritizing and managing an ongoing information security program," said David Capuano, vice president of product management. "TruSecure's cost-effective methodologies, continuous process and unmatched risk forecasting enable organizations to achieve and maintain an effective security posture while focusing their attention on their core business."

Pricing and Availability

TruSecure 2001 is provided on a fixed-price annual subscription-based model and is available immediately.

About TruSecure Corporation

TruSecure provides global 10,000 companies with comprehensive enterprise risk management programs that assure the ongoing security of their critical systems and information. By integrating disparate security products and processes into a comprehensive risk management program, TruSecure helps hundreds of companies achieve greater risk reduction at lower cost. TruSecure's ICSA Labs is the security industry's central authority for product standards and testing, and today certifies more than 95% of the market's anti-virus software, network firewalls, cryptography and IPSec products. Based in Reston, VA, TruSecure

Corporation is privately-held with investors including J. & W. Seligman & Co.,
J.P. Morgan Partners, Weston Presidio Capital, Greylock and WaldenVC.

For more information about TruSecure please visit www.trusecure.com.

CONTACT: Susan Lee
TruSecure Corporation
703/453-0578
slee@trusecure.com
or
Jason Morris/Beth Grupp
Schwartz Communications, Inc.
781/684-0770
trusecure@schwartz-pr.com

URL: <http://www.businesswire.com>

Copyright (c) 2001 Business Wire. All rights reserved.

Company Names: FISERV INC; HURWITZ GROUP INC; HURWITZ BROTHERS; SCHWARTZ COMMUNICATIONS INC

Product Names: COMPUTER SECURITY; COMPUTER SOFTWARE; INTERNET; NETWORKS; SECURITY; THEORETICAL ANALYSIS; COMPUTERS; COMMUNICATIONS TECHNOLOGIES; DATA COMMUNICATIONS

Event Names: MANAGEMENT PROCEDURES; SERVICES; TECHNOLOGY DEVELOPMENT; THEORETICAL ANALYSIS

3/9/38 (Item 38 from file: 20)

16099332

TruSecure Delivers First and Only Web-Based Service for Central Management of Comprehensive Enterprise Security Efforts

BUSINESS WIRE

April 10, 2001

Journal Code: WBWE ? Language: English ? Record Type: FULLTEXT

Word Count: 677

RESTON, Va.--(BUSINESS WIRE)--April 10, 2001--

TruSecure 2001 provides management console to oversee integrated program for continuous identification and mitigation of security risks

TruSecure Corporation, the leader in information security assurance, today introduced the first service that enables organizations to centrally manage an enterprise-wide program that identifies risk to their critical IT assets, mitigates that risk, then maintains an essential level of ongoing security "health." TruSecure 2001 leverages a patent-pending Web-based method for integrating people, technology and processes into a continuous, coordinated and prioritized risk management program.

"TruSecure 2001 empowers us to integrate the disparate aspects of our security work, thereby more effectively mitigating our risk," said Jeff Brewer, lead security analyst at Fiserv in Atlanta, GA. "For the first

time, we can capture a real return on our security management investment."

TruSecure 2001 assures ongoing information security in a preventive manner, before threats become problems. Real-time updates to TruSecure's essential security practices, accessible through the Web-based console, enable organizations to effectively manage security in a constantly changing environment. TruSecure's unique Object-Oriented Security Model creates a more accurate **enterprise risk**

assessment and **determines** the "right level" of security controls by identifying the relationships between networks, devices, applications, people and physical locations. Unlike solutions offered by other managed **service providers** and consulting firms, TruSecure 2001 is a fixed-price, annualized subscription service that utilizes a patent-pending automated software model and database to continuously map a customer's IT infrastructure against a set of essential security practices. Once TruSecure practices are successfully implemented, the customer receives industry-recognized certification, providing them confidence and assurance that their mission-critical e-business systems and applications are hardened against "cyberthreats."

TruSecure 2001's console provides CIOs and chief security officers a real-time window into the organization's status and progress towards complying with TruSecure's essential security practices. This Web-based interface provides layered views and drill-down capabilities from the enterprise to the subsidiary, division, department or individual device level.

"TruSecure's approach provides a systematic way to manage enterprise security that can be tailored to each customer's specific needs," said Peter Lindstrom, senior analyst with the Hurwitz Group. "In a sense, TruSecure is providing ongoing certification of an organization's security readiness."

TruSecure enhances traditional security methods by integrating all phases of a risk management program through a patent-pending Object-Oriented Security Model. This approach efficiently crafts a customized security program around the unique interactions between devices, users and physical locations that define an organization. Those phases are:

IDENTIFY - Inventory of critical assets through electronic scanning and interviews.

ASSESS - Assessment of risks, including risks from hacking, viruses and worms, physical threats, privacy issues, downtime and human factors.

PROTECT - Creation of a customized program of security controls to reduce identified risks, accessible through a Web-based management interface.

ASSURE - Maintenance of effective security program over time, through continual revalidation of security posture and constant monitoring of emerging risks.

"Many organizations struggle with the complexities of defining, prioritizing and managing an ongoing information security program," said David Capuano, vice president of product management. "TruSecure's cost-effective methodologies, continuous process and unmatched risk forecasting enable organizations to achieve and maintain an effective security posture while focusing their attention on their core business."

Pricing and Availability

TruSecure 2001 is provided on a fixed-price annual subscription-based model and is available immediately.

About TruSecure Corporation

TruSecure provides global 10,000 companies with comprehensive enterprise risk management programs that assure the ongoing security of their critical systems and information. By integrating disparate security products and processes into a comprehensive risk management program, TruSecure helps hundreds of companies achieve greater risk reduction at lower cost. TruSecure's ICSA Labs is the security industry's central authority for product standards and testing, and today certifies more than 95% of the market's anti-virus software, network firewalls, cryptography

and IPsec products. Based in Reston, VA, TruSecure Corporation is privately-held with investors including J. & W. Seligman & Co., J.P. Morgan Partners, Weston Presidio Capital, Greylock and WaldenVC. For more information about TruSecure please visit www.trusecure.com.
CONTACT: Susan Lee TruSecure Corporation 703/453-0578
slee@trusecure.com or Jason Morris/Beth Grupp Schwartz Communications, Inc.
781/684-0770 trusecure@schwartz-pr.com
10:30 EDT APRIL 10, 2001

Copyright 2001 Business Wire. Source: World Reporter (Trade Mark).

Country Names/Codes: United States of America (US)

Regions: Americas; North America; Pacific Rim

SIC Codes/Descriptions: 7375 (Information Retrieval Services)

Naics Codes/Descriptions: 514191 (On-Line Information Services)

3/9/39 (Item 39 from file: 16)

08429429 ? ?Supplier Number: 71722237

United Stationers Inc. Reports Preliminary First Quarter Results.

PR Newswire , p NA

March 15 , 2001

Language: English ? ?Record Type: Fulltext

Document Type: Newswire ; Trade

Word Count: 681

Text:

DES PLAINES, Ill., March 15 /PRNewswire/ --

United Stationers Inc. (Nasdaq: USTR) announced today that based upon preliminary financial results for the two months ended February 28, 2001, the Company currently expects sales and earnings for the first quarter of 2001 to be below the Company's previously stated goals of 6 to 9% organic sales growth and 15% growth in earnings per share. Sales for the two months ended February 28, 2001 were up 8.4%, reflecting modest growth in the core business as well as contributions from recent acquisitions. As a result of continued investments in building its logistics and fulfillment business, The Order People, and softness in its core business, the Company expects earnings per share for the first quarter to be in the range of \$0.59 to \$0.63, compared with \$0.69 in the prior-year first quarter.

Randall W. Larrimore, president and chief executive officer said, "For the first quarter ending March 31, 2001, the operating loss for The Order People will be in the range of \$6.0 to \$7.0 million. Excluding the operating loss associated with The Order People, the Company would expect to achieve growth in earnings per share over the first quarter of the prior-year."

"We are confident that the long-term market opportunity for the fulfillment and Customer Relationship Management services offered by The Order People is significant. However, we are taking actions to lower the overall cost structure of The Order People to reflect our revised expectations relative to the timing of the revenue stream. We will continue to examine the cost structure to make further adjustments, as

necessary. In addition, we are continuing to implement cost-reduction programs throughout the company. While the near-term is challenging, we remain optimistic about our long-term growth potential," concluded Larrimore.

United Stationers Inc., with 2000 sales of \$3.9 billion, is North America's largest distributor of business products to resellers and provider of marketing and logistics services. Its integrated computer-based distribution system makes more than 40,000 items available to 20,000 resellers. United is able to ship products within 24 hours of order placement because of its 39 United Stationers Supply Co. regional distribution centers, 28 Lagasse distribution centers that serve the janitorial and sanitation industry, six Azerty distribution centers that serve computer supply resellers, three distribution centers that serve the Canadian marketplace and a distribution center serving clients of The Order People. Its focus on fulfillment excellence has given the company a 98% order fill rate, a 99.5% order accuracy rate, and a 99% on-time delivery rate. For more information, visit www.unitedstationers.com.

With the exception of statements on historical events, the information presented in this news release contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. These statements involve risks and uncertainties that could cause actual results to differ materially from the information presented here. The **risks** and uncertainties affecting this release include, but are not limited to, **assessing** the market potential for third-party **service providers**, the timing of revenue generation, the ability of the **company** to quickly adjust the cost structure of The Order People and the success of The Order People and e-NITED, the integration of acquisitions, changes in end-users' demands for business products, customer credit risk, the effects of fluctuations in manufacturers' pricing, general economic conditions, and the highly competitive environment in which the company operates. A description of these and other factors that could affect the company's business are set forth in filings with the Securities and Exchange Commission including the company's latest 10-K and 10-Q. The company's SEC filings are readily available at www.sec.gov.

The company's common stock trades on the Nasdaq National Market System under the symbol USTR and is included in the S&P SmallCap 600 Index.

COPYRIGHT 2001 PR Newswire Association, Inc.

COPYRIGHT 2001 Gale Group

Publisher Name: PR Newswire Association, Inc.

Company Names: *United Stationers Inc.

Event Names: *830 (Sales, profits & dividends)

Geographic Names: *1USA (United States)

Product Names: *5112000 (Stationery Supplies Whsle)

Industry Names: BUS (Business, General); BUSN (Any type of business)

SIC Codes: 5112 (Stationery and office supplies)

NAICS Codes: 42212 (Stationery and Office Supplies Wholesalers)

Ticker Symbols: USTR

Special Features: LOB; COMPANY

3/9/40 (Item 40 from file: 20)

15415288

In brief

Gwen Ackerman, Gregg Gardner, Buzzy Gordon

JERUSALEM POST

March 01, 2001

Journal Code: WJPT ? Language: English ? Record Type: FULLTEXT

Word Count: 584

Shamrock purchase of Pelephone approved

The government yesterday formally approved the Shamrock Group's purchase of Motorola's half of cellular telephone service provider Pelephone for \$590 million, including a loan of \$240 million from Bezeq. Shamrock, the investment arm of the Roy Disney family, has acquired the shares on behalf of Bezeq. The phone monopoly continues to own 50% of Pelephone, and aspires to buy the Shamrock shares once it is privatized.

Gwen Ackerman

Argoquest completes \$40m. financing round

Argoquest Holdings, LLC, a Herzliya-based holding company that manages a network of some 60 local technology companies, said it has completed a \$40 million first round of financing. The round was lead by Broadcom Corporation, which controls Herzliya-based VisionTech, HSBC Holdings plc, and Shamrock Holdings of California Inc. The four- year-old company, which also maintains offices in Los Angeles and Texas, focuses on early-stage technology companies that develop Internet infrastructure, enabling technologies, wireless and telecommunications solutions. Gregg Gardner

RadVision repurchases 10% of shares

RadVision, a Tel Aviv-based provider of technology for real-time voice and video over Internet protocol, said yesterday that it authorized the repurchase of up to 10% of its shares. The company currently has 19 million common shares outstanding. RadVision did not specify the sums allocated for the program, noting only that the acquisitions will be made "from time to time" at current market prices; no time limit has been set for the duration of the program. Gregg Gardner

ECI's InnoWave wins \$11m. Mexican telecom deal

ECI Telecom Ltd. said yesterday that its wholly-owned subsidiary InnoWave ECI Wireless Systems Ltd. has won an \$11 million contract from Telmex Mexico, a telecommunications company. According to the agreement, Petah Tikva-based InnoWave, via affiliate ECI Mexico, will provide its MultiGain Wireless Systems to Telmex in order to provide wireless telecommunications services in the country. The technology will enable Telmex to provide voice, data and Internet service programs to its subscribers. Gregg Gardner

VCON inks \$2m. deal with Bank of China

VCON, a Herzliya-based provider of networked video over Internet protocol (IP) solutions has won a \$2 million supply contract from the People's Bank of China (PBC), the Chinese central bank. According to the agreement, VCON will provide 143 videoconferencing systems to PBC, which operates in 11 of the country's provinces. The project, whose installation is slated for completion in the coming months, is aimed at improving China's e-banking capabilities and its communications systems. Gregg Gardner

Helon Tec acquires software house for NIS 1.1m.

Helon Tec, a Tel Aviv-based developer of human resource management software, said yesterday that it has acquired Bull Computers Ltd. for NIS 1.1 million. Local software house Bull operates in the computerized salary field, handling some 15,000 payment slips per month, 70 percent of them from the hotel sector. Its clients include the Sheraton Plaza, Sheraton

Moriah, and Caesar hotel chain. Gregg Gardner
Medirisk Solutions raises \$1m.

Tel Aviv-based Medirisk Solutions announced yesterday that it has completed \$1 million in first-round financing, from investors in the insurance industry. The company valuation is \$3 million.

Medirisk Solutions was founded in 1999 by Dr. Moty Bahar to develop medical and life insurance underwriting software. The software standardizes decision making after **assessing** the **risk** profile of an individual applying for insurance.

The **company**, which employs six people, has developed an ASP (application **service provider**) revenue model based on payment per questionnaire and already has customers. The current investment round was led by Ziv Capital Markets, which is affiliated with accounting firm of BDO-Shlomo Ziv Associates. Buzzy Gordon

Copyright 2000 Palestine Post Limited. Source : World Reporter (Trade mark)

Company Names: Motorola Inc; Disney Enterprises Inc; Bezeq

Descriptors: Privatisations; Company News; Monopolies & Antitrust; Regulation of Business; Shareholdings; Mergers & Acquisitions; Government News

SIC Codes/Descriptions: 4812 (Radiotelephone Communications); 9631 (Regulation Administration of Utilities); 3570 (Computer & Office Equipment)

Naics Codes/Descriptions: 513322 (Cellular & Other Wireless Telecommunications); 51332 (Wireless Telecom Carriers exc Satellite); 92613 (Regulation & Admin of Utilities); 334 (Computer & Electronic Product Mfg)

3/9/41 (Item 41 from file: 16)

08229723 ? ?Supplier Number: 68873195

Be Afraid...Be Very Afraid -- Malicious attacks are on the rise, and trends are harder to predict-step one is admitting your company is vulnerable.(Industry Trend or Event)

Morgan, Lisa

InternetWeek , p 37

Jan 8 , 2001

ISSN: 1096-9969

Language: English ? ?Record Type: Fulltext

Document Type: Magazine/Journal ; Trade

Word Count: 2200

Text:

If you're not afraid about the state of your company's security, you should be. Hackers are scanning ports en masse, coordinated attacks are gaining popularity, and, more and more, network users who appear to be valid may actually be impostors. The real problem is that's just the outside attacks. Experts say 60 percent to 70 percent of attacks come from inside the company. So, be aware—or be hacked.

Large companies that spend big bucks on their own security staffs and outsourced expertise aren't always safe. Take last October's attack on Microsoft. Hackers used the well-known QAZ worm to break into Microsoft's

computer systems to steal product design information about the Windows operating system and the Microsoft Office suite. Western Union was also attacked last September. Hackers gained access to 15,700 customer accounts, including credit-card information. And, while high-profile denial-of-service attacks like the ones that took down eBay and CNN.com last February don't happen every day, most security experts agree that DoS attacks do occur daily.

Although FBI investigations of these and other high-profile attacks make headline news, most DoS and other hacking incidents are not reported. That means the problem is far worse than it appears. Most companies don't report break-ins-particularly internal hacks-because they don't want customers and shareholders to lose confidence.

The reality is that attacks are on the rise. A Computer Security Institute/FBI survey released last year, says the number of respondents reporting their Internet connections as a frequent point of attack increased every year for five years, from 47 percent in 1996 to 59 percent in 2000. And Pilot Network Services, a secure service provider, reported in its latest Cyber Barometer online newsletter that the overall frequency of threats was steady during the past few months. But the number of different types of attack attempts increased by 15 percent in November 2000 alone.

"We're seeing more NetBIOS attacks, scans and viruses," says Phil Simmonds, director of technical marketing at Pilot. "We're monitoring attacks and reporting the trends in Cyber Barometer, but the problem is you don't know what the trends will be. Past trends are not necessarily indicative of future trends."

Pilot provides highly secure VPN and hosting services to a broad range of enterprise customers. Simmonds says one advantage Pilot has over most intrusion detection system (IDS) vendors is anonymity. Pilot's intrusion detection tools are proprietary and therefore can't be purchased and reviewed by a malicious source. Other service providers argue in favor of managed services over the purchase and use of tools in-house because they are selling security expertise that's otherwise difficult and expensive to obtain directly.

Despite the growing popularity of outsourced services, vendors say they're selling more equipment than ever. Most agree that effective intrusion detection and enterprise security requires more than a firewall or IDS-companies need both, as well as virus detection and encryption. More important, businesses need to define security policies and implement them effectively. The problem is most IT professionals are not security experts. As a result, the quality of a company's security program may be limited by a lack of internal expertise.

Vendors say some customers are buying security systems but are not necessarily maintaining them. They fail to download patches and known signatures, leaving themselves open to the latest attacks. Purchasing an IDS is only a first step.

"We are seeing a massive increase in the automated scans for specific vulnerabilities," says Tim Belcher, chief technology officer and co-founder of Riptech, a managed service provider. "A couple of months ago, it was compromising common Unix services. Distributed DoS attacks are still a real problem. Customers have to continually protect themselves."

Most vendors agree that security needs to become more of a priority for customers. However, they don't necessarily agree how security should be implemented. Some advocate host IDSes that monitor traffic and logs, while others promote network IDSes that reside at the edge of the network. Pete Lindstrom, a security analyst at the Hurwitz Group, says the two security options are converging, and some vendors are beginning to offer more integrated products and services. Regardless of which architecture vendors pitch, effective security requires a multilayer defense.

Which security systems companies ultimately implement depends on corporate security policies, network architectures, business models and the ability to effectively manage security. Nir Zuk, chief technology officer at OneSecure, another managed service provider, says IT managers often have

trouble administering IDSes because they generate a massive amount of log data that IT managers don't have time to analyze. To stay on top of breaches, IDSes let users set alarms, but often the intrusions are false positives. Instead of having their beepers go off every 10 minutes, IT managers are either relaxing their standards or ignoring the beeps. Zuk and some of the IDS vendors agree that the tools for managing alerts and raw data need to be streamlined.

Then there's the problem of staying current. During one fiscal year, an IT manager or COO may request \$300,000 for security expenditures and the following year request the same amount or more to keep up with the company's security needs. Sometimes management doesn't understand why security systems need to be repurchased and may deny or at least argue with the request.

Navigating the security maze is also an issue. IT managers would like to get answers from the vendors, but they may not know which questions to ask. Hackers look to exploit these types of weaknesses and lack of knowledge in organizations. Maybe the front door is locked, but the back or side door is open. If so, most corporate networks are probably compromised in some way.

"Intrusion detection is reactive," says Ryon Packer, executive director of marketing at Intrusion.com, an IDS vendor. "People buy tools after the attack, similar to the way they buy firewalls. Worse, there is a skills gap. The rate at which a person can become and stay knowledgeable about security systems and malicious methods pales in comparison to the rate at which the industry is growing. People have to stay current, and that's tough."

Vendors are also challenged to keep up. Avi Fogel, president and CEO of IDS vendor Network One, says hackers will always be more agile than vendors because hackers don't go through a quality assurance process.

"The objective is to minimize vulnerability," Fogel says. "Ideally, you could find a more generic tool that prevents classes of intrusion like Trojan horses. A tool like that could have prevented the recent Microsoft break-in (in which an employee's machine was compromised)."

Network One offers a host-resident firewall and IDS that monitors layer 3, 4 and 7 traffic. Higher-level monitoring is important, given that many of the attacks happen at the application layer (layer 7), where malicious code is embedded in a popular desktop application. Network One is an advocate of intrusion detection at the edge of a network so that the host can see the attacks directed at it.

Piers McMahon, senior business manager for the eTrust suite of security products at Computer Associates, agrees that different traffic types must be monitored. ETrust detects known attack patterns at the network, server and application layers. The product also provides streaming updates so that IT managers and security professionals don't have to manually update servers.

"Hackers are trying to get under the social defenses," McMahon says. "Using Trojan horses, they're getting users to trustingly connect to a site that may be malicious or may deposit malicious code. They're avoiding the front door because they know you're watching it. Most companies have a false sense of security."

Not everyone does. Kurt Ziegler, chairman and CEO of traffic analysis vendor eBSure, was so concerned about his company's security, he included a security plan and budget in his initial business plan. Ziegler, who once headed security for Computer Associates, is familiar with the security risks software companies face. As a result, intrusion detection-and security in general-were top priorities from the start.

Ziegler says when he started at eBSure he wanted a level of security the company couldn't afford. Some of the firewall vendors claimed to be doing intrusion detection, but Ziegler went with Riptech because it offers an intrusion detection and firewall system that supports VPNs. The VPN support was critical because eBSure's developers-many of whom work from home and are dispersed geographically-are constantly exchanging information

about the software, as well as pieces of the software code over the network.

"As a software entrepreneur, I have to protect my assets, which are a base of programmers, the software they produce and our Web site," Ziegler says. "All three of those elements are affected by being connected to the network. We're inherently vulnerable."

Ziegler interviewed numerous security vendors, including companies offering firewalls, intrusion detection, virus protection and encryption. Given his desire for a high level of security, he found that the price points of equipment, software and a professional staff were more than he could afford.

"I had two choices," he says. "Make some trade-offs, or look for a managed service provider that could implement my (security) policies and provide me with a pay-as-you-go model."

Ziegler spent 30 days analyzing the various solutions and finally decided to hire Riptech, a **service provider** that offers **risk assessment**, security policy, architecture review and monitoring services. Riptech supports 12 different intrusion detection products and cross-correlates the attacks made on the various systems. Ziegler says his **company** went live with Riptech in just a week and now feels much more comfortable about the network's security.

"Hackers are getting a lot more sophisticated," Ziegler says. "They are able to tap on thousands of virtual doors simultaneously, looking for vulnerabilities. I'm in the intellectual asset business-software. That's why I worry about protecting it. For us, it's not an option, it's a necessity."

Craig Guinasso, formerly assistant security director at BankServ, also considers security critical to the success of his company's business. Guinasso left his BankServ job last year to become a senior security manager at Slam Dunk Networks. Prior to his corporate jobs, Guinasso worked for the Department of Energy's Emergency Response Team. One of his responsibilities at the Energy Department was to test the vulnerability of its in-house VPN.

"(If you're using a VPN), a hacker will use a tunnel to get into your corporate network," Guinasso says. "Most people don't care about security until there's a break-in. We knew from the start we had to secure (our VPN) connections because they were vulnerable."

Security experts say security is only as robust as its weakest link. Guinasso says telecommuters are the weakest link because hackers know companies are guarding the core corporate network. BankServ uses the Network ICE tools suite to protect its home users. Although Guinasso is happy with the product, he admits that any security solution is only secure until a new hole is discovered.

Given the creativity among hackers, vendors and service providers warn that intrusion detection must become a front-burner issue. Cyber attacks have separated businesses into two types: Companies that have been attacked and those that will be attacked. So be afraid...be very afraid. n

Lisa Morgan is a contributing editor at InternetWeek. She can be reached at lisamorgan@mindspring.com.

KEEP THE INTRUDERS OUT

Use these tips as a guide for deciding on an intrusion detection system:

Be honest. Admit that your company is vulnerable to attack.

Assess the risk. Define the risks, then be sure top corporate management understands what's at stake.

Have a plan. Define a set of security policies and then implement them.

Educate your staff. Have the IT staff learn about security methods, trends and systems.

Understand what needs to happen. It's important to understand how to implement IDSes and the resources they require.

Focus on intrusion detection. Include an IDS as part of your overall enterprise security strategy. The IDS should be in line with your network architecture and business model.

Follow up with the systems vendors. Download the latest security and operating system patches often.

Use outsourcers. Hire security consultants or outsource security if you don't have the internal expertise to handle the level of security you require.

Stay involved. If you outsource security, keep close tabs on the outsourcer. Agree on how to administer a regular feedback loop.

Keep informed of the latest trends. Stay alert-attack strategies are constantly changing.

<http://www.internetwork.com/>

Copyright (copyright) 2001 CMP Media Inc.

COPYRIGHT 2001 CMP Publications, Inc.

COPYRIGHT 2001 Gale Group

Publisher Name: CMP Media, Inc.

Event Names: *600 (Market information - general)

Geographic Names: *1USA (United States)

Product Names: *7372613 (Network Security Software)

Industry Names: CMPT (Computers and Office Automation); TELC (Telecommunications)

SIC Codes: 7372 (Prepackaged software)

NAICS Codes: 51121 (Software Publishers)

3/9/42 (Item 42 from file: 15)

02103938 ? ? ? ? ? 65174371

Project management of small R&D companies, Part II

Bertrand, Sylvie; Dion, Stephane B; Brown, Jane Gayton; Et al

Pharmaceutical Technology ? v24n12 ?pp: 68-70

Dec 2000

CODEN: PTECDN

ISSN: 0147-8087 ?Journal Code: PHTY

Document Type: Periodical; Feature ?Language: English ?Record Type: Fulltext ?Length: 3 Pages

Word Count: 2171

Abstract:

Project management is the process by which a project is initiated, planned, executed, and controlled from a clearly specified scope to successfully meet project objectives. A project management team in a contract research organization (CRO) is compelled to adjust its approach according to the vast array of inquiries and work awarded from various companies within the industry. A project management team's contribution to risk management, joint ventures, and the one-stop-shop paradigm used by many pharmaceutical companies in their outsourcing approach are discussed. From a project management perspective, a CRO can add value to 5 areas when these distinctions are well understood: solid regulatory expertise, scientific expertise, risk management, joint ventures between small and/or large R&D groups, and outsourcing approach.

?

Text:

Planning for risk allows project managers to overcome hurdles and meet the project's objectives.

Project management is the process by which a project is initiated, planned, executed, and controlled from a clearly specified scope to successfully meet project objectives. A project management team in a contract research organization (CRO) is compelled to adjust its approach according to the vast array of inquiries and work awarded from various companies within the industry.

Part I of this article discussed a CRO's regulatory and scientific expertise (1). Part II focuses on a project management team's contribution to risk management, joint ventures, and the one-stop-shop paradigm used by many pharmaceutical companies in their outsourcing approach.

Risk management

A large CRO's ability to anticipate pitfalls and to have multiple contingency plans at several levels (e.g., from financial stability to scheduled project deliverables) increases the likelihood of a successful partnership between a small research and development (R&D) company and a large CRO. Planning for risk allows project managers to anticipate hurdles and to develop effective and easy-to-implement plans to overcome the obstacles and meet the projects objectives. The perceived risks impinging on the relationship between a small firm and a large CRO can be categorized according to legal, financial, scientific, logistic, and personnel issues.

Legal. The large CRO may insist on executing confidentiality agreements, master service agreements, and contracts before beginning any discussions or work. Although time consuming, the execution of such documents before any work is initiated ensures adequate coverage, responsibilities, and rights for both parties in the event of breach or fault by either party and helps CROs more effectively manage risk. Mutual indemnification often is disregarded because the ability to cover legal costs associated with potential claims is not always appreciated by small firms. Governing law also is a large and often overlooked factor among many small R&D organizations. Governing law can affect court decisions with considerable variability, especially when reciprocal indemnification clauses are omitted from legal instruments. Large corporations tend to have more experience with legal risks and are therefore more open to resolving contractual matters before work is initiated.

Financial. The availability of funds is a major limiting factor for small R&D companies, which are forced to favor bids from the least expensive CRO. This choice sometimes works against the small R&D firm because the selected CRO may not offer the same depth of knowledge that a large CRO does. A low price typically means that a project manager may not be dedicated to the project. From the CRO's perspective, limited funding requires that a partial payment is made up front before work is begun, all billing milestones are met, and invoices are paid as work progresses.

The fiscal limitations of a start-up **company**; also may require more creative financing plans, with payment terms that may include stock holdings to the **service**; **provider**;. CROs should evaluate stock participation as compensation for services within their overall **risk**; **assessment**; as regulatory agencies more closely examine the issue of financial disclosure.

Scientific issues. A CRO's scientific expertise and experience are essential for anticipating the various scientific challenges that can delay project timelines. These challenges may include

- * technical difficulties intrinsic to the compound (e.g., developing the appropriate detection method without creating unrealistic price and timeline expectations)
- * the compound's biochemical nature and complexity (e.g., stability and storage)
- * any special supplies needed to perform the work, which may include exclusive products that require several weeks for delivery.

Clearly defining the scope of the work and the scientific expectations before beginning the work will minimize potential risks. Large CROs tend to have more qualified resources and backups available, both from the bench and from the project management team.

Logistic issues. Communication models should be developed for each project. A distinction should be made between routine communication and crisis communication. A routine communication involves day-to-day updates of project milestones and change notices that may affect the critical path or parallel path within the project timeline. Crisis communication involves issues that must be resolved immediately because they definitely affect other milestones along the critical path. Making this distinction ensures that key decision makers or strategic managers are aware of and are involved in resolving an issue. Many large CROs service global clients, which requires specific procedures and backup plans with respect to sample or material shipment.

Personnel. A strong and open relationship between a small R&D company and a large CRO, in which roles are clearly defined and expectations are clearly laid out at the onset of any specific project, will facilitate risk management. Issues such as differences in language and culture require that the CRO make special efforts to avoid assumptions or misunderstandings.

Joint ventures

On the basis of the authors' observations of small R&D and big pharma joint ventures, some of the greatest project management challenges arise when combining a familiar approach with a more creative plan. Both partners must be accommodated in order for a CRO to successfully become a part of that collaboration. Before bringing in a CRO as a third party, joint venture partners should build a strong, confident relationship with the other business partner.

A CRO's understanding of the investment or level of participation that each party brings to the joint venture agreement will facilitate understanding of the decisionmaking and communication processes that should be respected. Knowing whether this agreement has been established to cover a specific project or a more general collaboration allows the service provider to define the scope of its business relationship with the joint venture partners. Recognizing the need for a CRO to be flexible in providing either broad master service agreements or project-specific agreements is a critical step.

Although joint venture partners often present themselves as a single entity, less-- structured agreements may require that the partners be managed by the CRO as two separate companies. Accordingly, service providers should understand the intricacies of the contractual agreements binding these companies. For example, various decision-making processes for technical matters and contractual issues may exist within a joint venture

agreement. The noncompetition covenants within the agreement may restrict the sharing of information between the technical decision makers and those handling commercial matters.

The CRO's project management team may be privy to all matters and therefore is obligated to devise and maintain clearly defined communication models to preserve the confidentiality required by the joint venture agreement. The successful joint venture agreement will identify a restricted number of members - a maximum of five or six - who will be involved in making the decisions. The core team will have defined responsibilities for day-to-day issues, established communication models, and responsibilities for each milestone in the joint venture program. The CRO also must be mindful of the logistical aspects of the communication model by being flexible about its work schedule when managing the partners of a joint venture across different time zones.

These mechanisms can facilitate timelines and help companies avoid cost overruns. A successful CRO association with a joint venture agreement depends on upfront resolution of the following:

- * Who should handle the CRO queries and updates on project status?
- * Who determines, and at which point, whether the other partner should be drawn into the discussion?
- * Who has final decision authority for approving changes in budget allocation, scope, or timelines?

Project managers have more control of timelines and cost overruns when the structure of the joint venture agreement is fully understood ahead of time.

The one-stop-shop paradigm

Small R&D firms and large pharmaceutical companies may choose to outsource work for several reasons: to add resources, to access additional expertise, to increase organizational flexibility, to reduce development time, or to increase cost effectiveness. One trend in outsourcing strategy is the one-stop-shop approach in which a CRO is awarded a substantial portion or even an entire product development program. The authors' project management group has observed differences and commonalities in attitudes between big pharma and small R&D firms toward this approach.

Request for proposals (RFPS). A distinction exists between big pharma and small firms in how they approach a CRO with an RFP before contracting work. Small firms often will request a price bid for global product development (or at least a substantial share), whereas large innovator companies are likely to request different quotes for various pieces of the entire program from one CRO. Interestingly enough, after gathering all proposals, neither type of client is more likely than the other to award an entire program to one CRO.

Outsourcing. A sponsor must decide early in the outsourcing process whether CROs are to be service providers or strategic partners. The choice then is whether to use one or several CROs. Many small R&D companies prefer the strategic partnership option. Placing the outsourced work at one CRO through a strategic partnership is seen by many small R&D companies to have the following benefits:

Strong relationship between sponsor and CRO. A close, strong relationship between the CRO and the sponsor is seen as one of the most positive outcomes of the strategic partnership outsourcing approach. The sponsor is a key member of the project team, which is formed at the CRO and is included at every decision-making step. As a compound moves through

development and into the various areas at the CRO's facility, the project manager will remain on the project team and is the sponsor's representative.

When working with large CROs, small R&D companies often are concerned about their projects being given lower priority status than those of large companies. Project managers are responsible for focusing on their clients. This level of focus is facilitated by a strategic partnership in which the project manager is more in tune with the internal priorities and expectations of the sponsor and ensures that appropriate priorities are maintained. In addition, dedicating one project manager to all of the work for that sponsor helps ensure consistency.

Knowledge of the molecule or compound. As a compound moves through the development stages within the CRO-sponsor strategic partnership, the knowledge and expertise gained by the CRO in working with the compound is spread more easily among various departments. This expertise facilitates the transition.

Risks associated with the one-stop-shop approach. The risks observed by both small R&D firms and large pharmaceutical companies in outsourcing all of the work to one CRO are akin to the risks associated with any lack of diversification in procurement. Like many businesses, many start-up R&D firms and established corporations will shy away from relying on any one supplier or service provider for the following reasons:

- * overall product development cost control
- * concerns about breadth of expertise among the various stages of product development
- * doubts surrounding the CRO's financial stability or longevity
- * trepidation about the CRO's depth of scientific and regulatory expertise with respect to employee turnover
- * desire for second (or possibly more) opinions regarding scientific and regulatory approach
- * concerns about the CRO's reputation among regulatory agencies with respect to compliance with good clinical practices, good laboratory practices, and good manufacturing practices over time.

The ability of the individual project manager and the team to be flexible is crucial to servicing all clients, whether they prefer to diversify their outsourcing or to contract all work to one CRO.

Conclusion

Before a CRO can begin a successful relationship with start-up enterprises such as fledgling innovator, biotechnology, and generics firms, the needs of these unique companies must be distinguished from those of their more established counterparts. From a project management perspective, a CRO can add value to five areas when these distinctions are well understood: solid regulatory expertise, scientific expertise, risk management, joint ventures between small and/or large R&D groups, and outsourcing approach.

Project managers have come to appreciate the high standards placed on a CRO's performance by a dynamic industry and the consequences of performance on its various segments. This two-part article has focused on the organizations that make up some of the more exciting and yet often vulnerable sectors and some of the potential opportunities and challenges facing them and the project management teams they are working with.

Acknowledgments

This article is based on information that appeared in a poster presented at the Third Annual Symposium of the Canadian Society for Pharmaceutical Sciences held 8-10 June 2000 in Vancouver, Canada. The authors would like to thank Madeleine Belisle, Angelo Tiganos, and the project management staff at MDS Pharma Services (formerly Phoenix International Life Sciences) for their help in preparing this article.

Reference

1. F. Beddia et al., "Perspective from a Large CRO: Project Management of Small R&D Companies, Part I," *Pharm. Technol.* 24 (11), 94-98 (2000). PT Francesca Beddia,* Sylvia Bertrand, Stephane B. Dion, Jane Gayton Brown, Timotea Palado, and Brenda Rolfe

The authors make up the senior management team of the project management department at MDS Pharma Services, 2350 Cohen Street, St. Laurent (Montreal), QC, Canada H4R 2N6, tel. 514. 333.0033, fax 514.333. 9837, e-mail frank. beddia@mdsps.com. *To whom all correspondence should be addressed.

THIS IS THE FULL-TEXT.

Copyright Advanstar Communications, Inc. Dec 2000

Geographic Names: United States; US

Descriptors: Risk management; Project management; Pharmaceutical industry; Research & development; R&D; Joint ventures

Classification Codes: 8641 (CN=Pharmaceuticals industry); 5400 (CN=Research & development); 3300 (CN=Risk management); 9190 (CN=United States)

Print Media ID: 37261

3/9/43 (Item 43 from file: 16)

07964896 ? ?Supplier Number: 66570303

AT&T a Force in High Availability Networking Solutions.

PR Newswire , p 6797

Oct 31 , 2000

Language: English ? ?Record Type: Fulltext

Document Type: Newswire ; Trade

Word Count: 662

Text:

ORLANDO, Fla., Oct. 31 /PRNewswire/ --

AT&T (NYSE: T) has developed the technology, resources, expertise and relationships with industry-leading companies to become a major force in the High Availability Networking Solutions industry, the company announced

at the Storage Networking World Conference here today.

"Customers have entrusted management of their networks to us," said Rudy Alexander, vice president and managing partner at AT&T Solutions, the company's networking professional services subsidiary. "Now they are looking to us for help in developing and managing long-term, custom network-based storage solutions, and we are perfectly positioned to do so."

"The foundation we are building this new business on is our global network; hundreds of conditioned network nodes around the world; the AT&T Solutions Global Enterprise Management System (GEMS), our world class networking-management and monitoring platform; and seven advanced networking-management centers worldwide."

"Hundreds of professional services experts are dedicated to this business, skilled in complex, integrated high-availability Storage Area Networking (SAN), storage, computing and networking implementations and with proven expertise in rapidly scaling services to meet high-growth demands," Alexander said.

AT&T Solutions has announced strategic alliances with EMC Corp. for AT&T Ultravaliable(SM) Data and with Hewlett-Packard Company for AT&T Ultravaliable(SM) Computing for HP Platforms. Following an open network systems approach, the company is teaming with the leading hardware and software vendors across the industry.

AT&T is a member of HP's 5nines:5minutes program, which is focused on delivering the highest availability for customers doing business in the Internet economy. AT&T is supplying global networking and integration components for the program.

"We were an early adopter of high-availability storage networking ourselves, and we deployed SANs for our own internal network management and monitoring, **enterprise** applications and storage consolidation programs," Alexander said.

Users of AT&T's high availability solutions include financial services companies, Internet **Service Providers**, manufacturers and the lodging industry. AT&T Solutions is providing high availability network storage **risk assessments**, **risk assessments** of networks, IP backbones and customer care operations, security **assessments**, design and engineering professional services and more.

Benefits to clients include access to the most sophisticated end-to-end networking management and monitoring capabilities, custom service level agreements and overall best in class quality, availability and reliability. To support its professional services, AT&T leverages its buying power for equipment provisioning for customers. Because the company is constantly updating its technology platforms, clients can benefit from regular technology updates and from not having to take on new technology risk alone, he said.

The company has made significant investments in enhancements to its GEMS platform for monitoring and managing high availability solutions. AT&T monitors and manages clients' networking, storage, SAN, server, application and e-business solutions from its networking management center in Alpharetta, Ga.

AT&T Solutions is a member of the Storage Networking Industry Association and holds patents in high availability and business continuity technologies.

The company's commitment to leadership in high availability networking solutions agreement is another example of AT&T executing its strategy to be the broadband network of choice for companies of all sizes as it helps them manage, transform and innovate in their businesses.

About AT&T

AT&T Corp. (<http://www.att.com>) is among the world's premier voice, video and data communications companies. With annual revenues of more than \$62 billion and 160,000 employees, AT&T provides services to customers worldwide.

Backed by the research and development capabilities of AT&T

Labs, the company runs the world's largest, most sophisticated communications network and has one of the largest digital wireless networks in North America.

The company is a leading supplier of data and Internet services for businesses and offers outsourcing, consulting and networking-integration to large businesses. Through its recent cable acquisitions, AT&T delivers broadband video, voice and data services to customers throughout the United States. Internationally, Concert, the AT&T/BT Global Venture, serves the communications needs of multinational companies and international carriers worldwide.

Logo: <http://www.att.com/identity/library/>

COPYRIGHT 2000 PR Newswire Association, Inc.

COPYRIGHT 2000 Gale Group

Publisher Name: PR Newswire Association, Inc.

Company Names: *AT and T Corp.; AT and T Solutions Inc.

Product Names: *3661276 (Broadband Modems NEC); 4811000 (Telephone Service); 7372700 (Contract Software & Services)

Industry Names: BUS (Business, General); BUSN (Any type of business)

SIC Codes: 3661 (Telephone and telegraph apparatus); 4813 (Telephone communications, exc. radio); 7373 (Computer integrated systems design)

NAICS Codes: 334418 (Printed Circuit Assembly (Electronic Assembly) Manufacturing); 51331 (Wired Telecommunications Carriers); 5415 (Computer Systems Design and Related Services)

Ticker Symbols: T

Special Features: LOB; COMPANY

3/9/44 (Item 44 from file: 16)

07876026 ? ?Supplier Number: 65771052

CMP Media's tele.com Announces Landmark ASP Research; Early Adopters Satisfied with Initial Results and Return on Investment.

PR Newswire , p NA

Oct 5 , 2000

Language: English ? ?Record Type: Fulltext

Document Type: Newswire ; Trade

Word Count: 1025

Text:

NEW YORK, Oct. 5 /PRNewswire/ --

A new poll of 300 service providers and 356 enterprise/IT Web professionals indicates that there is tremendous room for growth in the application service provider (ASP) arena. This landmark ASP Study, produced by tele.com, whose in-depth, forward-thinking analysis provides service provider executives with the intelligent context needed to compete successfully, and NetWorld+Interop 2000 Atlanta, aimed at analyzing both the supply and demand sides of emerging application services. It surveyed service providers and enterprise managers -- the buyers and the sellers --

on similar topics. Top line findings include:

- 75 percent of current ASP users claim ROI within one year
- The most important hosted application service elements required by customers are 24 x 7 technical support (77 percent now/58 percent in the next twelve months); service-level agreements (74 percent now/79 percent in the next twelve months) are rated the most important hosted application service elements to customers
- Reliability (77 percent), customer service (71 percent) and expertise in needed applications are the most important criteria organizations used when selecting an ASP vendor
- Lack of control over data (71 percent) and security concerns (63 percent) are the most important factors limiting use of ASPs
- Locating or retaining qualified technology expertise (65 percent) is the most common operational challenge for organizations delivering application services

are the most common infrastructure challenges in organizations delivering application services

The survey shows that early ASP adopters have dipped into outsourced services one at a time and are now more clearly defining the services they want to adopt. The most common uses now, as well as those predicted in the next twelve months, are Web site and e-mail services. Another interesting finding shows that while small to mid-sized companies (under 100 employees) were the first to adopt the ASP model, the next group to use application services will be large organizations of 1,000 employees.

"While this survey shows that ASPs seem to understand the needs of current buyers in this early phase, it also shows a lack of understanding for what prospective buyers want and need. Many of these non-users have not been approached by ASPs and do not understand the benefits of using an ASP," explained Jerry Caron, tele.com associate publisher. "To fully exploit this \$25 billion industry by 2004 (Dataquest), it is critical that service providers gauge the needs of future customers and that they clearly communicate the business value of using hosted applications."

The Enterprise Perspective

Companies are using applications primarily for Web sites and e-mail messaging. Almost 80 percent of these current application users claim to recover their costs in the first year, while non-users are more skeptical of returns and **risk**-averse to purchasing hosted applications.

Company culture (51 percent of **enterprise** companies say they don't even outsource), control, and security are the biggest factors **determining** non-use. Seventy six percent of non- and future-users deem **risk** management insurance critical to their purchase of these applications.

The **Service Provider** Perspective

Service providers are faced with both challenge and opportunity in closing this perception chasm between users and non-users. And there is much opportunity, because over 50 percent of **enterprise** end-users have not even been approached to buy hosted applications. According to the results, ASPs expect to drive deeper into the enterprise hierarchy in the next 12 months. If they are going to change non-user perceptions, ASPs will need to focus on the security of hosted applications and communicate boldly on their benefits.

Some Conclusions

Service providers need to "cross the chasm" between early-adopter current users and new customers. If they are to succeed, they will have to concentrate on building out infrastructure, as well as hiring and maintaining the technical expertise to keep their applications running

around the clock. The survey shows that service providers are in fact getting ready for this opportunity, but in an environment of scaled back funding and consolidation, the competition is bound to be fierce.

About the Survey

The survey methodology for this study was telephone interviews from a random sample of over 600 tele.com magazine subscribers and NetWorld+Interop attendees. If you are interested in more information about this landmark study, please contact n Donegan@cmp.com.

About tele.com

tele.com provides executive-level service providers with the intelligent context they need to compete successfully in today's rapidly evolving communications industry. Through its in-depth, forward-thinking analysis of communications trends, technologies, and issues from a global perspective, tele.com empowers senior management to make smart, strategic decisions. The magazine's circulation spans more than 79,500 managers at all types of network services providers and operators worldwide. The tele.com Web site is <http://www.teledotcom.com>.

About CMP

CMP Media Inc., recently acquired by United News & Media plc (Nasdaq: UNEWY), is the leading high-tech media company providing essential information and marketing services to the entire technology spectrum—the builders, sellers, and users of technology worldwide. With its portfolio of newspapers, magazines, custom publishing, Internet products, research, consulting, and conferences, CMP is uniquely positioned to offer marketers comprehensive, integrated solutions tailored to meet their individual needs. Online editions of the company's print publications, along with products and services created exclusively for the Internet, can be found on CMPnet at <http://www.CMPnet.com>.

About NetWorld+Interop

NetWorld+Interop is a Key3Media Event. Key3Media Events, Inc., a wholly owned subsidiary of Key3Media Group, Inc., is the world's leading producer of information technology tradeshows and conferences, serving more than 6,000 exhibiting companies and two million attendees through 60 events in 18 countries. Key3Media Events' products range from the IT industry's largest exhibitions such as COMDEX and NetWorld+Interop to highly focused events featuring renowned educational programs, custom seminars and specialized vendor marketing programs. For more information about Key3Media Events, visit <http://www.key3media.com>.

Key3Media, NetWorld+Interop, Interop, COMDEX and associated design marks and logos are trademarks owned or used under license by Key3Media Events, Inc., and may be registered in the United States and other countries. NetWorld is a service mark of Novell, Inc., and is registered in certain jurisdictions. Other names mentioned may be trademarks of their respective owners.

COPYRIGHT 2000 PR Newswire Association, Inc.

COPYRIGHT 2000 Gale Group

Publisher Name: PR Newswire Association, Inc.

Company Names: *Networld Inc.

Geographic Names: *1USA (United States)

Industry Names: BUS (Business, General); BUSN (Any type of business)

Special Features: COMPANY

07842708 ? Supplier Number: 65475208

Hiverworld Provides XUMA With Innovative Network Security Solutions For Its Customers.

PR Newswire , p NA

Sept 26 , 2000

Language: English ? Record Type: Fulltext

Document Type: Newswire ; Trade

Word Count: 467

Text:

Hiverworld's Swarm(TM) and Ansible(TM) Selected by XUMA as Best-of-Breed

Solution for Vulnerability Assessment and Management

BERKELEY, Calif., Sept. 26 /PRNewswire/ --

Hiverworld(TM), an emerging leader in network **risk** management technologies, today announced XUMA as a new customer.

Hiverworld's products Swarm(TM) and Ansible(TM) offer **service** **providers** and enterprises an innovative approach to network security **assessment**. Swarm continuously profiles network vulnerabilities, including the detection and evaluation of a **company**'s security **risk** level, as well as identifying and classifying specific vulnerabilities. Ansible(TM) collects raw data from Swarm appliances and stores the information in a centralized intelligent database for reporting and comparative evaluations over time.

"We recognize Hiverworld as key technology for making the Web systems we build and host as secure as possible," said Jamie Lerner, CTO, Chairman and co-founder of XUMA. "The ability to discover the vulnerabilities in our customers' systems is an invaluable added service, as it provides customers with a key element in maintaining a secure network. With XUMA's 24x7 monitoring enhanced by Swarm and Ansible, we are taking our customers' security to a much higher level. Once an alert is generated by Swarm and Ansible, our expert security staff will respond and make recommendations to our customers for modifying their systems to eliminate critical vulnerabilities."

Swarm has a 97% accuracy in identifying vulnerabilities through the use of intelligent vulnerability scoring and ongoing vulnerability database updates. The methodology used by Swarm ensures that the continuous interrogation of network devices has no impact on normal operation and performance, making the process seamless to users. Ansible incorporates a centralized, failsafe datastore for easy access to Swarm vulnerability data through secure communication. Users can view reports through a standard browser and can export the data to HTML or PDF file formats for additional analysis and viewing.

"We are excited that XUMA is extending our security solutions to its customers," said David C. Cruickshank, Chief Executive Officer and President of Hiverworld. "In today's high risk environments, e-business providers need the kind of sophisticated vulnerability assessment that Swarm and Ansible afford. The primary characteristic of today's networks is their ever-changing nature. Our security solution is equally dynamic, and that will give XUMA's customers the kind of network risk management control necessary to keep their businesses secure."

About Hiverworld, Inc.

Founded in 1998, Hiverworld Inc. is a privately held company headquartered in Berkeley, CA. Hiverworld's team of security experts has developed patent-pending security technologies to build a new class of network-based, intelligent risk management solutions. Managed Service Providers and e-businesses use the company's products and services as key

building blocks in their security infrastructure. Hiverworld is a founding member of the Common Vulnerability Enumeration Project. For more information, visit www.hiverworld.com.

NOTE: All company and/or product names used herein may be trademarks of their respective owners.

COPYRIGHT 2000 PR Newswire Association, Inc.

COPYRIGHT 2000 Gale Group

Publisher Name: PR Newswire Association, Inc.

Company Names: *XUMA Technologies L.L.C.

Event Names: *380 (Strategic alliances)

Product Names: *7372000 (Computer Software); 7372613 (Network Security Software)

Industry Names: BUS (Business, General); BUSN (Any type of business)

SIC Codes: 7372 (Prepackaged software)

NAICS Codes: 51121 (Software Publishers)

Special Features: LOB; COMPANY

3/9/46 (Item 46 from file: 16)

07733740 ? ?Supplier Number: 64488779

Pilot and PRIMUS Telecommunications Group Present Strategic E-Business Seminars to Australian Business Leaders.

PR Newswire , p NA

August 23 , 2000

Language: English ? ?Record Type: Fulltext

Document Type: Newswire ; Trade

Word Count: 818

Text:

Six-City Seminar Series Details E-Business Security Threats and Solutions and

Provides a Confidential Security Risk Assessment to

Each Participating Executive

ALAMEDA, Calif., Aug. 23 /PRNewswire/ --

Pilot Network Services, Inc.(R) (Nasdaq: PILT), the first provider of secure, subscription-based e-business services, today announced a six-city seminar series that details e-business security risks and solutions for Australian business leaders. Presented in conjunction with PRIMUS Telecommunications Group, Incorporated (Nasdaq: PRTL), Australia's fourth largest carrier and second largest Internet service provider, the seminars also provide each participating executive with a confidential e-business security risk assessment to identify potential areas of vulnerability to viruses and data tampering.

"As businesses transition their operations to the Internet -- in Australia and around the world -- security has shifted from a technology issue to a mission-critical business imperative. Whether a company is selling products and services online, or is using the Web to communicate with partners and suppliers, it is exposed to the dangers of cybercrime.

With this seminar series, Pilot and PRIMUS will share e-business security expertise with Australian business executives to help identify risks and solutions before problems arise," said Marketta Silvera, chairman and chief executive officer of Pilot.

Partnering to Protect E-Business:

Pilot and PRIMUS Telecommunications Group

In January, Pilot and PRIMUS announced a partnership by which Pilot configures PRIMUS Centers around the world with its patent-pending Heuristic Defense Infrastructure(TM) (HDI(TM)) to provide secure e-business. On August 11, PRIMUS launched the first of these centers -- its new, state-of-the-art data center in Melbourne, Australia. This center is the first in the Pacific Rim region to offer Pilot Protected(TM) e-business services, including secure Web hosting, Internet access, and extranet services to enable businesses to securely extend their enterprise to business partners, customers, and suppliers worldwide.

Seminar Dates

The Pilot-PRIMUS E-Business Security seminars took place in Sydney on August 18; Melbourne on August 21 and 22; and Adelaide on August 23 and are scheduled for Perth on August 24; Brisbane on August 25; and Canberra on August 29. Executives from Australian companies with e-business initiatives are invited to attend. The confidential security **risk assessment** is free to all seminar participants.

About PRIMUS Telecommunications Group

PRIMUS Telecommunications Group, Incorporated is a global facilities-based Total **Service Provider** offering bundled data, Internet, digital subscriber line (DSL), e-commerce, web hosting, enhanced application, virtual private network (VPN), voice and other value-added services. The **Company** owns and operates an extensive global network of owned and leased transmission facilities, including over 300 IP points-of-presence (POPs) and Internet peering relationships throughout the world, ownership interests in over 23 undersea fiber optic cable systems, 19 international gateway and domestic switches, a satellite earth station and a variety of operation relationships that allow the company to deliver traffic worldwide. PRIMUS has been expanding its e-commerce and Internet capabilities with the deployment of a global state-of-the-art broadband fiber optic ATM+IP network. Founded in 1994 and based in McLean, VA, the Company serves corporate, small and medium sized business, residential and data, ISP and telecommunication carrier customers primarily located in the North America, Europe and Asia-Pacific regions of the world. News and information are available at the Company's Web site at www.PRIMUSTel.com.

About Pilot Network Services, Inc.

Pilot Network Services, Inc. is the first provider of highly secure, subscription-based e-business services. As the Security Utility(TM) pioneer, Pilot enables secure e-business for companies of all sizes in every industry by providing a wide range of services with built-in security to protect enterprise networks. Pilot protected e-business services include secure hosting, Internet access and gateways, and extranet/VPN services. Customers can choose options including encryption, authentication, access control, virus scanning, and web filtering. Pilot provides the highest level of protection available today by connecting businesses to the Internet through Pilot Security Centers. Protection from hackers, viruses, and other threats is built into the Pilot network with an advanced, distributed security architecture called the Pilot Heuristic Defense Infrastructure(TM) (HDI(TM)). The Pilot HDI combines the most advanced technology with 24 x 7 monitoring by security engineers to continually evolve and proactively defend Pilot clients' e-business interactions against attack. Pilot can be reached at 888-40-PILOT or online at www.pilot.net and info@pilot.net.

NOTE: Pilot, Pilot Network Services, Inc., the Pilot logo and Pilot Corporate Partner Privacy are the registered trademarks of Pilot Network Services, Inc. and are registered with the U.S. Patent and Trademark

Office, and the Pilot Heuristic Defense Infrastructure, Pilot Protected, and HDI are trademarks of Pilot Network Services, Inc.

Except for the historical information contained herein, the matters discussed in this news release are forward-looking statements that involve certain risks and uncertainties that could cause actual results to differ materially, including potential fluctuations in results of operations, the new market for Internet security monitoring, detection and defense services, impact of competitive products and services, and risk factors listed in Pilot's registration statement on Form S-1 dated August 10, 1998.

COPYRIGHT 2000 PR Newswire Association, Inc.

COPYRIGHT 2000 Gale Group

Publisher Name: PR Newswire Association, Inc.

Company Names: *Pilot Network Services Inc.; Primus Telecommunications Group Inc.

Product Names: *4811150 (Long Distance Telephone Service); 7372640 (Electronic Commerce Software)

Industry Names: BUS (Business, General); BUSN (Any type of business)

SIC Codes: 4813 (Telephone communications, exc. radio); 7372 (Prepackaged software)

NAICS Codes: 51331 (Wired Telecommunications Carriers); 51121 (Software Publishers)

Ticker Symbols: PILT; PRTL

Special Features: COMPANY

3/9/47 (Item 47 from file: 20)

12294410

COR AG acquires Infexpert Holding (COR AG hat den Schweizer Risikoprüfer Infexpert Holding übernommen)

(translated English abstract)

FRANKFURTER ALLGEMEINE ZEITUNG , p 23

August 08, 2000

Journal Code: FFAZ ? Language: German ? Record Type: ABSTRACT

Word Count: 66

COR AG, a German software and **service provider**, has acquired Infexpert Holding AG, a Swiss-based **company** which supplies standard software for the **assessment** of health **risks** for the insurance sector. The purchase price has not been published.

Infexpert is said to have a 50 per cent share of the German medical insurance market. Cor AG, which serves the financial sector, showed turnover of DM21.9m in 1999.

Abstracted from Frankfurter Allgemeine Zeitung in German FT McCarthy - Copyright 2000 Financial Times Information. Source: World Reporter (Trade Mark) .

Descriptors: Market Share; Marketing; Company News; Mergers & Acquisitions

Country Names/Codes: Switzerland (CH) ; Germany (DE)

Regions: Europe; West Europe ex EU; Western Europe; European Union

SIC Codes/Descriptions: 6320 (Medical Service & Health Insurance); 6300 (Insurance Carriers); 7372 (Prepackaged Software); 6719 (Holding Companies NEC)

Naics Codes/Descriptions: 524114 (Direct Health & Medical Insurance Carriers); 5241 (Insurance Carriers); 51121 (Software Publishers); 551112 (Offices of Other Holding Companies)

3/9/48 (Item 48 from file: 20)

10874762

Dedicated to safety

Section Title: ADVERTISING

INFOTECH WEEKLY , 2 ed , p 15

May 01, 2000

Journal Code: WIWY ? Language: English ? Record Type: FULLTEXT

Word Count: 494

SYSTEMS security is a jigsaw - no single service or piece of technology can ward off every potential threat.

Professional services company Sytec set up a national team of experts several years ago to piece together the skills and technical expertise to deliver tailored security solutions.

The SytecSecure team consists of more than a dozen specialists, who also have access to Sytec's 50 engineers around New Zealand.

Business development manager Erin Harte says security issues are a worry for many New Zealand organisations in the online era.

"We see situations where major problems have occurred, due to a less than strategic approach to security. Often organisations have some of the security pieces in place, but there are gaps in the whole picture."

"The gaps aren't discovered until there is a problem."

Organisations that have installed firewalls assume they have addressed their security risks, but do not realise that many security breaches occur from within.

Management of traffic in and out of organisations is not always well monitored, and little attention is paid to security issues surrounding third party network connections.

"Often we are called in to undertake a security audit after an issue has arisen," Mr Harte says.

"Typically there are huge variations between the security organisations think they have in place, and what is actually there."

Security breaches are alarming even if they do not have expensive or business-threatening effects.

He says security scares are a catalyst for organisations to pay more attention to internal and external threats.

"We witness far too much security work that is poorly conceived and of very little depth."

The SytecSecure team can recommend security building blocks and help organisations to prepare a clear security strategy. SytecSecure also assists with the design and construction of security solutions. In some cases, Sytec provides an outsourced security management service for customers who don't have the in-house skills to monitor their own network security.

Sytec's security management service monitors activity on customers' networks.

"We look at traffic to and from the Internet, from third party service providers, and even internally within customers' own networks," Mr Harte

says.

The service also manages and maintains security policies on behalf of client organisations, and the hardware and software used to enforce these policies.

He says SytecSecure's analysis, design and build team is always in demand.

"The large scale adoption of Internet connection and e-commerce by government and corporate organisations has led to a whole raft of new challenges in providing security audit, design, implementation and management."

SytecSecure works internationally, most recently completing a project to design and build next-generation Internet **Service**

Provider networks in Asia.

Consulting services offered by the SytecSecure team include **risk assessment**, auditing, creation of security frameworks, security engineering, security penetration testing, deployment, and research and development. It also does systems management tasks, maintenance, **enterprise** services, and systems administration.

Customers include government, energy sector, health and banking organisations.

Details about Sytec and its security services and solutions is located at:

www.sytec.co.nz

Copyright 1999 Independent Newspapers Limited. Source: World Reporter (Trade Mark).

3/9/49 (Item 49 from file: 16)

07184309 ? ?Supplier Number: 61356120

HNC LAUNCHES EFALCON FRAUD DETECTION TECHNOLOGY.(Brief Article)

Card News , v 15 , n 7 , p NA

April 5 , 2000

ISSN: 0894-0797

Language: English ? ?Record Type: Fulltext

Article Type: Brief Article

Document Type: Magazine/Journal ; Trade

Word Count: 151

Text:

San Diego-based HNC Software Inc. (HNCS), an applications service provider (ASP) of e-commerce value-added services, March 28 announced it has launched its European operations with the immediate availability of eFalcon, an Internet fraud management service, and its first European client for the eFalcon service, U.K.-based DataCash, a payment gateway company. eFalcon, an Internet bank card fraud detection and management service for online merchants and **service providers**, will enable DataCash to help merchants **assess** the **risk** of a purchase for fraud on any type of bank card, including credit, debit and private-label card transactions. This system, based on neural network technology, will enable DataCash to provide its merchant customers a means to accurately predict and manage fraudulent transaction purchase behavior. This affords consumer protection and helps companies maximize revenue in the Internet commerce environment.

(HNC Software Inc., Jane Leonard, 858/799-3880; DataCash Ltd, Shallu Behar-Gill, + 44 (0) 207 632 0400.)

COPYRIGHT 2000 Phillips Publishing International, Inc.

COPYRIGHT 2000 Gale Group

Publisher Name: Phillips Publishing International, Inc.

Company Names: *HNC Software Inc.

Event Names: *146 (Foreign operations)

Geographic Names: *4EUUK (United Kingdom)

Product Names: *7372000 (Computer Software); 4811520 (Online Services)

Industry Names: BANK (Banking, Finance and Accounting); BUSN (Any type of business)

SIC Codes: 7372 (Prepackaged software); 4822 (Telegraph & other communications)

NAICS Codes: 51121 (Software Publishers); 514191 (On-Line Information Services)

Special Features: LOB; COMPANY

3/9/50 (Item 50 from file: 15)

01990180 ? ? ? ? ? 49327920

[Upsidedownside]: e-business 150 winners & losers

Selland, Chris; Anderson, Howard

Upside ? v12n3 ?pp: 206-254

Mar 2000

ISSN: 1052-0341 ?Journal Code: UPS

Document Type: Periodical; Feature ?Language: English ?Record Type: Fulltext ?Length: 26 Pages

Special Feature: Photograph Graph Table Chart

Word Count: 14587

Abstract:

The Internet and e-business are, in a general sense, the primary drivers for much of the technology investment that is taking place now. But the really smart companies are pursuing some specific categories and opportunities. Some of the e-business spaces - networking, telecommunications, infrastructure, software, and services that enable the Internet era - are the ones that matter, so the Yankee Group and Upside have ranked them to see which companies are the leaders in these key areas. Areas ranked are: 1. platforms and tools, 2. applications and commerce, 3. services, 4. next-generation networks, and 5. wireless.

?

Text:

The Internet and e--business are, in a general sense, the primary drivers for much of the technology investment that's taking place now. But the really smart companies are pursuing some specific categories and opportunities. Some of the e--business spaces -- networking, telecommunications, infrastructure, software, and services that enable the Internet era -- are the ones that matter, so the Yankee Group and UPSIDE have ranked them to see which companies are the leaders in these key areas, and which ones are just blocking traffic on the information superhighway.

Just what are these key e-business areas?

Customer loyalty. The market for enterprise resource planning (ERP) systems took a precipitous fall to near-zero growth in 1999, yet the market for customer relationship management (CRM) systems is expanding at a 40--plus percent pace. Why? Because companies are recognizing that the focus has shifted away from being efficient and toward being effective. The coming decade will be about control of the customer, and the companies that succeed are those that rapidly shift their investments in technology from internally focused process efficiency to an external customer orientation.

Pervasive content. Yes, commerce is a killer Internet app, but we think that an even bigger (yet less talked about) app is content. This belief isn't simply based on the fact that both the Yankee Group and UPSIDE are in the content business: It's because, while there is certainly a market to buy and sell on the Web, most people are really using the medium to get information. Content. As content emerges as a critical app, the arms merchants providing content-management systems—from Akamai to Vignette—will keep experiencing truly stratospheric growth.

E-sourcing. Obviously, the need for companies to move themselves into e-business is a major driver, but it's also making corporations take a long, hard look at whether they should attempt that transition themselves. Most of the smart ones are answering, "No." For most, the shift to e-business means that many of the skill sets they have worked so long to cultivate not only are no longer valuable, but can in fact be a huge hindrance. Companies aren't retraining internal staff with last-generation skills: Doing so simply takes too long and costs too much. Rather, a class of companies we call "e-sourcers"—Internet systems integrators and systems innovators, application service providers (ASPs), "Netsourcers," and other service providers—will help companies get to market more rapidly and successfully.

Wireless Internet. The Web is going wireless—and that means huge risks for some existing wireless players that are optimized for a voice-driven world. But it also creates tremendous opportunities for the technology to provide anytime-anyplace access. Perhaps the most significant developments in the mobile-communications world are centered around the convergence of wireless and the Internet. For years, we at Yankee Group have been saying that "this is the year of wireless data," but in 2000 the pieces finally seem to be falling into place.

Even while technology startups keep emerging and converging to take advantage of these trends, these companies cannot all win. You could say that for every winner there will be a loser; but on the Internet there won't be just one loser—there will eventually be hundreds. So what will differentiate the winners from the losers? One of the real keys to success is whether a company can sniff out marketplace trends, take advantage of them and then execute.

Under any set of circumstances, despite today's ebullient venture-capital and IPO markets, we believe that amateur hour is rapidly coming to an end. All of these markets that didn't exist a year or two ago and that now have 10 or 15 young, immature companies in them will be shaken out—and soon. When that happens, the new markets will find themselves with one or two true success stories, three to five other participants possibly absorbed into bigger firms, and perhaps five to 10 flameouts.

PLATFORMS AND TOOLS

As the merchants of 1849 discovered, the real money in the California gold rush wasn't in panning for gold, but in selling picks and shovels to the

miners. In today's Internet gold rush, those companies providing the foundation infrastructure are poised to gain a disproportionate benefit from the e-business revolution.

Who really cares whether Merrill Lynch beats E-Trade, or vice versa? The action is in providing the billions of dollars' worth of technology that they will invest in the process.

The drive to e-business is already paying off big for the infrastructure providers—from those that offer baseline software and hardware platforms (including IBM, Sun Microsystems, and Microsoft) to those providing higher-level application frameworks for functions like personalization, e-commerce, and content management (such as Vignette, Art Technology Group, and Interwoven).

While the infrastructure players thrive, the applications segment of the software industry is undergoing a sea change as application service providers (ASPs) have captured the hearts and minds—if not yet the pocketbooks—of corporations. The early conventional wisdom held that ASPs would be the perfect system for the middle market, but so far the customers aren't buying. Simply putting an enterprise resource planning (ERP) system in a box, hosting it in a data center, and then renting or leasing access to companies has proven ineffective. Also, it has created tremendous price erosion among ASPs: We have seen price differences from \$80 to \$400 per user per month for comparable applications. The dust may not settle for a while.

Ultimately, the real growth in the applications business will be little affected by whether the ASP model takes off. Although we are still cautiously optimistic about the appeal of renting versus buying software, a simple change in the delivery model does not fundamentally alter either the economics of the industry or the value proposition from the customer's perspective. In the end, the independent software vendors (ISVs) for applications may, as Oracle Chairman Larry Ellison recently stated, become the largest ASPs of all.

So who wins? It may not be so much the ASPs as a new class of companies we call "Netsourcers"—those that provide the outsourced infrastructure on which the applications are run. Netsourcers are hosting providers on steroids; they provide core competency in infrastructure rather than in applications. Thus, they are poised to win as long as the appeal of having someone else manage companies' infrastructures continues to gain appeal. With eBay's and other companies' high-profile crashes not only gaining headlines but also costing market capitalization, we are very bullish on the Netsourcing phenomenon.

Contributors Colin Mahony, Steve Robins, Paul Scarpa, and Chris Selland

Microsoft ****We said it last year: Bill Gates should break up his company before U.S. District Court Judge Thomas Penfield Jackson does it for him. After all, the federal government has in the past won 84 percent of such cases, and it certainly doesn't appear willing to cede this one. In the meantime, however, Microsoft continues to roll: Windows 2000 is finally shipping, and competition from upstarts like those offering Linux and established players like Sun Microsystems stay even, at best. Still, Microsoft is simply too huge and unwieldy, and a breakup of the company makes a great deal of sense. Its management is more than smart enough to realize that—so expect this move as part of a settlement later this year.

Sun Microsystems **** Although Sun now effectively controls Netscape Communications' enterprise products, it's becoming obvious that the Sun/Netscape alliance was little more than a tax dodge for America Online and a way for Sun to get its hands on Netscape's enterprise assets without

buying them outright. While this alliance, along with acquisitions such as Forte Software and NetDynamics, bring Sun a wealth of assets, the problem is that managing this mess has become all but impossible. It's hard to say which move Sun CEO Scott McNealy will regret more next year-- inviting the Department of Justice into the technology tent, or meeting AOL head Steve "The Technology Business Will Ultimately Be Decided in the Political Arena" Case? Maybe they're effectively the same thing. Also, let's not forget that the Linux operating system represents a much bigger threat to Sun's Solaris OS than it does to Windows. While 1999 was a good year, this year might be just a tad tougher.

Novell ** If Eric Schmidt is such a genius, why have all of Novell's marketing people quit? Maybe the CEO figured out he didn't need them--or perhaps the company's "comeback" may have been called a bit too early. By the way, has anybody bought a copy of NetWare lately? (We didn't think so.) While Novell's new offerings, including NDS and Digitalme, hold promise, customer adoption still lags. We wouldn't be surprised to see these products acquired if the dogs don't start eating the dog food--and soon.

IBM **** Lou Gerstner may run IBM's broad portfolio of technology assets more like a mutual fund than a technology giant, but the company has made the tough decisions and is almost fully focused on the infrastructure market. Although distractions--such as forming CorePoint Technologies to get a toehold into the customer relationship management (CRM) market and trying to compete with Cisco Systems in networking--have faded, growth (outside of the services sector) remains problematic. Meanwhile, Jeff "Top Gun" Papows's eviction as the head of the weakening Lotus Development definately showed; the division's autonomy, while a noble experiment, was simply not working anymore.

Hewlett-Packard *** "Venerable" and "HP" go hand in hand. So did "stodgy," "asleep at the switch" and "Internet? What Internet?" In 1999, the company got a good dose of religion-- and made a rapid-fire array of HP-style deep (read: real) Internet software partnerships with the likes of BEA Systems, BroadVision, Viador and Yahoo. An open question: Are partnerships the right direction, or should HP get more aggressive about acquisition? The Carly Fiorina era is off to an adequate start, but much remains to be done to tighten the company's strategy and execute it.

Compaq Computer ** Yes, it's easy to second-guess, but Eckhard Pfeiffer drove this company almost all the way into the ground with ill-advised and poorly executed acquisitions--particularly of Digital Equipment. Restructuring, management turnover and reorganization have drawn focus away from innovation and growth. However, Michael Capellas was a brave choice for the new CEO, and he is itching for an opportunity to prove the doubters wrong. Compaq's powerful brand-- although somewhat tarnished--still shines, and there is a window of opportunity to rebuild.

Computer Associates International *** CA has never been an innovator, but it is always present with a very complete lineup of proven (if long-in-the-- tooth) products. Its push into e-business is a good sign that the market is maturing-- but also that CA will begin making life much tougher for some of the incumbents. Expect a move for either Sybase, Informix or both this year. That would apply some real pressure to Oracle.

SilverStream Software *** SilverStream has always understood the need for simplicity when it comes to developing, deploying and managing Internet applications. Its integrated system for Web application development has been well received in the market, particularly among ISVs and developers. That said, there are also many who simply want an application server for deployment without all the development bells and whistles. This is something that SilverStream claims to have addressed in its newest release.

The company has a seasoned management team with great experience in the database world, which will be important as those vendors continue to encroach on the application server market.

BEA Systems *** BEA's acquisition of WebLogic was one of the shrewdest software acquisitions of 1998. WebLogic's Web application server remains the leading enterprise Java bean server in the market, and it is a good vehicle from which BEA can sell its traditional middleware. BEA needed a story, and WebLogic is it. Let's face it: Connecting distributed applications and data is on the mind of every chief information officer, and BEA stands poised to offer the tools for the job. Its strong relationship with Hewlett-Packard (which really should have just bought the company) should help here as well. Although BEA may find some of its cash-cow middleware products being heavily discounted by large, aggressive competitors such as IBM, we believe that its top-notch management team is up to the challenge.

Persistence Software *** Persistence is a pure-play transactional application server vendor with object-relational mapping, caching and replication technologies that separate it from the pack. We believe that the company's E-commerce Appliance Initiative should be well received in a market that values one-stop shopping. Its alliances with Internet VARs and a few large OEM deals, like the one it struck with Intershop, should give Persistence a significant boost in market share. The key will be its ability to break early into startups and smaller accounts with its low-end offering while also selling the one-stop system-- a strategy we expect to work well. The good news is that companies are waking up to the importance of persistent object caching as customers constantly demand more data more quickly. Missing its results in the first quarter after its IPO didn't help its cause with investors, but Persistence has a great vision and product lineup.

Sybase ** The big news of 1999 for Sybase was, well, that there still was a Sybase. After Oracle just about leveled the smaller database and application tool company in 1998, Sybase came back in '99 with a tightened focus and a strategy centered around portals. All right, our "turnaround of the year" call in '98 was premature, but it has happened. Portals leverage Sybase's database strengths, but in such a competitive market the company needs to expand on its resurgent momentum to make sure the turnaround sticks.

Informix ** Like Sybase, Informix also has a focused new message, although in this case it's on commerce systems. Chief financial officer Bob Finocchio did a tremendous job of turning this mess around, but his departure from operating duties could have been better-timed (for the company, at least). Nonetheless, the turnaround seems to be on track, as financials are looking up. But also like Sybase, Informix focuses on a very, very competitive market, and this could well be its last chance so the company had better get it right.

Allaire *** Get into enough departments and you have a virtual enterprise system. Allaire's products are widely deployed just about everywhere. A core enabler of Internet infrastructure, the company provides an application server and a new content management system that runs atop the app server platform. Expect Allaire to keep developing strong additions to Internet infrastructure for the enterprise.

Inktomi *** Inktomi plans to be the Microsoft of content that is distributed to the edge of the network, offering a platform for content delivery (caching software) as well as the applications to make that work—including content distribution, streaming media and more. Its greatest threat is that Akamai's service approach wins over Inktomi's product

approach, but Inktomi's deals with big players such as Exodus Communications and Digital Island should mitigate that risk.

Vignette *** The company that virtually defined soup-to-nuts content management and personalization is off and running-to keep ahead of a fast-growing market. The only problem is that the "Personalization thing"-individualized content that brings in millions of new customers-remains something of an enigma: It's often difficult to implement and usually very costly. Smart, yes, but maybe it's time for a new approach without the pain. That's why we're looking for a company-it could be Vignette-to redefine the market again.

Interwoven *** The content is the message! No content, no message. And content is what Interwoven delivers to Web sites. We like its product and technology vision. With a stable of blue-chip clients and partnerships with leading personalization vendors, Inter-woven is proving that content is king.

Eprise **** Eprise provides content management to help companies communicate with their key constituencies: front-to-back, next-generation, dynamic, user-oriented. It's a mouthful, but Eprise handles it all with ease through its content-management platform. The technology is so strong that it has multiple uses under the covers; chances are you just haven't seen them all yet.

Mercury Interactive **** One of the hottest companies in infrastructure, Mercury has taken the once mundane and obscure world of quality assurance and testing and now basically owns it. As high-profile outages such as eBay's continue to put focus on reliability, Mercury is poised to shine. It is one of the few vendors that can test and monitor not only Web systems but ERP and other back-end systems as well. We expect this Mercury to keep rising.

Accrue Software *** From its roots in the development efforts of Organic Online, Accrue burst on the e-marketing scene last year with the first IPO of this hot sector. Its Insight product is a collection of some of the most sophisticated Web-tracking software available. As integrating clickstream analysis into e-commerce and personalization initiatives becomes a priority, the destiny of Accrue's tools is in a larger offering of its or others' design.

Net Perceptions*** Personalization is hot, and perhaps no name has been more synonymous with the concept than Net Perceptions and its collaborative filtering tool that Amazon.com put at the disposal of the masses. Net Perceptions recently established Personalization. com, a speakers' corner for dissenters and boosters alike. The verdict is still out on whether the buzz is hype or not, but personalization has proven that it can sell. Through software, consulting, and conference fees, no one stands to gain more in the sector than Net Perceptions.

Blue Martini Software * * * Grabbing the spotlight in the e-commerce platform showroom of late is Blue Martini. This two-year-old has found itself under the hood of some major online retailing operations. It has taken the CRM message to e-merchandising with a fury; the mantra "Don't sell to customers, interact with them" has almost become its product's new name. With the ever-- lengthening queue of companies looking to "e" their business, remember that Blue Martini is one of those working behind the register.

Plumtree Software ** Chances are you hadn't heard of Plumtree 18 months ago, and maybe you still haven't-but you will. It is now everywhere because it has virtually defined the corporate portal space. Look for new partnerships with business-- intelligence vendors as Plumtree becomes the

de facto standard for user interface to applications, content and data throughout the extended enterprise. The biggest risk is that the company is too early to market, since this market has yet to really emerge.

Viador ** Here's another corporate portal play with a strong presence in an early market-but one with tons of promise. Viador has been quite nimble: Starting with its business-intelligence applications in 1999, the company morphed itself into an enterprise information portal. A slew of partnerships with the likes of Hewlett-Packard, IBM and others should help Viador as the portal market begins to gel this year.

DataChannel *** Until about 18 months ago, DataChannel--one of the true innovators in XML--couldn't execute on that strength and failed to gain traction in the marketplace. Now, under the leadership of seasoned executive Lucie Fjeldstad, it has homed in on corporate portals and surprised many with significant wins at General Motors, AT&T, and other companies, as well as a partnership with IBM.

EMC *** With its Data General acquisition, EMC becomes the clear market leader in traditional high-end and midrange storage technology. However, although it's been an exceptionally well-run company, we believe that EMC will have an increasingly hard time maintaining its very high prices and margins as market changes accelerate. In particular, some serious price erosion may begin to take place this year, and the company needs to get into new markets like network-attached storage (NAS) and caching--and do it quickly.

Storage Technology ** StorageTek has some solid offerings, including storage-area network capabilities, storage-- management services, and "by the drink" outsourced storage. However, the company has been substantially weakened by other missteps and by an overall lack of product vision. Like EMC, StorageTek has almost no presence in new markets such as caching and NAS. The storage market is being dramatically changed by the Internet, but StorageTek has missed most of the revolution. There's still time to awaken, but the clock is ticking.

Red Hat *** Red Hat maintains a healthy lead as the dominant commercial Linux distribution provider. Following its acquisition of Cygnus Solutions it now has more than 400 employees, and it positions itself as a one-stop provider of Linux tools, applications, and support services that run on anything from embedded devices to enterprise servers. Its wildly successful IPO shocked investors and CIOs alike--not bad for a company whose future rests entirely on its ability to deliver and differentiate itself by packaging documentation, support, drivers and content around a free operating system kernel. Like many other commercial open-source vendors, Red Hat walks the fine line of genuflecting to Wall Street while keeping the open-- source community happy, but just how long it can maintain this balance remains to be seen. What cannot be refuted are Red Hat's strong partnerships with OEMs like Intel and Dell Computer and with large ISVs such as Oracle. Its ability to gain similar momentum among VARs and build its support-services organization through such relationships may ultimately determine the company's fate. After all, we know that it's not making much revenue from the OS.

VA Linux Systems ** So this unprofitable company produces a few relatively inexpensive hardware form factors bundled with Linux and support services--and that warrants its \$7 billion market capitalization? It must be the name. We wonder how its IPO would have fared if the company were still called VA Research. You've got to hand it to Larry Augustin, though: He has established VA Linux as an innovator with first-mover advantages, especially in the regional Internet service provider market. The question we still ask ourselves, however, is how long the company can maintain this advantage with the likes of Dell, Compaq, and Sun following right behind?

The answer: Probably not very long.

Caldera Systems ** Caldera is the second most prominent vendor in the Linux market. Its Linux distribution competes with those of Red Hat, SuSE, and TurboLinux. Like these other vendors, Caldera faces the risky business model of packaging and selling support services, applications, tools and documentation around a free operating system kernel. Smaller companies may find its "Linux for e-business" pitch appealing, but for larger companies it is just noise. The key factor in determining Caldera's success rests on whether the VAR channel buys into its story. Caldera does not have the presence that Red Hat does among OEMs--and let's remember that the key word here is not "Linux" but "distribution." That said, Caldera has been very successful in the channel so far, particularly among VARs that cater to small and midsize businesses.

Tumbleweed Communications *** These folks move fast. We wish that Tumbleweed would have held off its IPO last summer, but otherwise it has been making tracks. Like many other aggressive companies, Tumbleweed has developed a platform--in this case for next-generation, secure messaging. It turns out that plain-vanilla e-mail just isn't secure enough for some companies, spurring growth in this new market. We expect that Tumbleweed will keep on rolling.

Critical Path *** Early into the IPO mania of 1999, Critical Path leveraged its huge market cap to rapidly capture new technology and customers in the e-mail outsourcing market. As the fastest-growing player in hosted e-mail--one of the simplest of applications--it is in a strong position as it enters 2000. However, its bigger challenge is now to compete more broadly in the ASP marketplace with more--complex applications, including e-commerce, ERP, and CRM. The opportunity is there, but Critical Path needs to move quickly.

USA.Net *** The first player in outsourced e-mail, USA.Net has maintained its lead against Critical Path's moves--and partnerships such as with America Online's Netscape have helped. The challenge going forward lies in the company's maintaining its lead against the more aggressive competition. As with Critical Path, this is true not just with e-mail, but in the broad and wildly competitive ASP marketplace as well.

APPLICATIONS AND COMMERCE

In 1999 efficiency-oriented investments in back-office ERP and financial systems went quickly out of style as CRM moved in. And this battle moved rapidly to the Internet. Why? Because increasingly that's where the customers are going: the Yankee Group forecasts that much of this transition to the Web will take place over the next 24 months.

A few other big buzzwords also became popular last year. First of all, the business-to--business sector has served up a bumper crop of blockbuster IPOs in terms of both application systems and e-market offerings. And of course, there is much hype--although precious few customers as yet--around the whole "software to services" transition as application service providers (ASPs) change the entire software business model.

MARKET PROJECTION

PLATFORMS AND TOOLS

STOCK PERFORMANCE

Over the past three years, we have seen an explosion in the number of business models that define how software companies operate and compete.

Some of the new models—such as ASPs with software rental, digital marketplaces with procurement functions, and online apps served to users through a Web site—result in companies that are not generally recognizable as "software developers"; indeed, the newcomers may not identify their new ventures as software companies. Examples of the new breed include Internet market makers like Chemdex and MetalSite, as well as portals such as Works.com and MySAP.com. Yet these sites can, and probably will, develop into companies that deliver application functions for businesses and consumers—challenging or replacing some types of software sold and installed in the traditional way.

The big question remains whether the ASP phenomenon is a passing fad, or if we are seeing the first Amazon.com scenario for the software industry. Will traditional software companies, their salespeople, and channels be challenged by online portals selling similar functionality on a per-disk basis? Perhaps. But don't discount the strength of the incumbent heavyweights, particularly those in the ERP and CRM markets. These companies are bouncing back with their own online strategies. Newcomers may find them tough to beat.

Contributors Robert Miram, Chris Selland, Harry Tse, and Lisa Williams

SAP **** SAP, the leading ERP vendor, is used to having a target on its back, but now the tables have turned. It lags in emerging areas such as CRM and electronic commerce. Money helps, but time is the larger concern here. Nonetheless, with Y2K concerns having faded, SAP's core business should pick up, giving the company a window of opportunity to regain lost ground. Never count this giant out, particularly given its dominant market share and customers determined to maximize ROI on some very heavy investments.

PeopleSoft * We told you so. This was what we said last year: "Unlike manufacturing and financial applications, human resources software (PeopleSoft's bread and butter) only needs to be replaced every 10 years or so. Can you spell saturation? ... It only gets harder from here." It more than got harder—PeopleSoft hit the wall. Its failure to put together the online business portal PeopleSoft Business Network is embarrassing. Can new CEO Craig Conway keep this ship afloat? Maybe. Will the company's purchase of dying CRM vendor Vantive make a difference? Doubtful.

Siebel Systems *** We can repeat almost everything we said about Siebel last year. The company is now clearly the gorilla of the traditional CRM market, steamrolling over challengers such as Clarify and Vantive. Still, it can't keep growing 85 to 90 percent annually in a market that's expanding about 50 percent a year, so expect some big acquisitions in the near future. Siebel has proven to be a good headhunter, too: The company hired enough executives from SAP to form its own football team. Big challenges lie ahead—including building (or more likely buying) a real Web business, and dealing with a reinvigorated and pissed-off Oracle. Nevertheless, Siebel is up to the challenge. It plays rough, and it plays to win.

Oracle *** President Ray Lane (and CEO Larry Ellison, too) got the job done in 1999, and Oracle had a banner year. First, the database market bounded back. Second, its thin-client-based applications are—finally—getting traction as a piece of Ellison's Network Computer vision comes true. Its Oracle Business—OnLine ASP/digital-marketplace landlord strategy is gaining a foothold as well. All of a sudden Oracle is an Internet company. What a difference a year makes. The biggest issue that Oracle faces this year is minimizing the damage that its push in applications is having on its database business, as competitors (but former database customers) such as SAP and Siebel aggressively jump into bed with alternatives, notably IBM and Microsoft.

J.D. Edwards** Who knew that enterprise software could be so boring? Despite the company's lack of flash, however, its fanatically loyal customer base, rock-solid products, and stable culture bode well for a post-Y2K turnaround. It still owns the middle market, and its alliances with heavy hitters such as Siebel Systems and Ariba will help J.D. Edwards gain enterprise attention, as will its well-deserved reputation for delivering products that just plain work.

VerticalNet * * * VerticalNet is an early leader in the rapidly emerging business-to-business marketplace arena. As a B-to-B exchange network that provides more than 50 industry-specific content and community sites, the company is shaping up to be a leader in the vertical-marketplace segment. Until now its focus has been on providing trade-- oriented content and bringing together niche communities (much like an About.com for industry). But the company is now moving to the transaction side of the business, using its core "eyeball assets" to make the cash register ring. Its December acquisition of NECX Exchange, an online marketplace for electronic components and networking products, will help build this end of the business. Although it's still too early to call it the winner, VerticalNet's momentum gives it an edge.

Tradex Technologies ** As long as there are gold-miners in the B-to-B gold rush, Tradex will be selling them picks and shovels in the form of a leading-edge e-marketplace-in-a-box. VerticalNet, a major player in the B-to-B portal area, will use Tradex's platform. Not a bad endorsement! (As UPSIDE went to press, Ariba announced an agreement to acquire Tradex.)

Ariba ** Ariba built a great story on a simple message: Large companies spend big bucks buying indirect goods (read: paper clips) and can save a lot of money by automating. The tale worked great, even if the not-quite-ready-for-prime-time Java architecture didn't. Also, Ariba was smart enough to put its dot-com strategy into high gear by moving into the marketplace business. But hold the hype7-the company is still missing a number of key technologies to operate as a full-service marketplace operator. The recent acquisition of auction software vendor Trading Dynamics may be the first of many that Ariba will bankroll with its stock currency to fill some major gaps. Even without smart acquisitions, though, look for Ariba to garner \$70 million in revenues and a market valuation high enough to fund the United Nations. For such momentum to last, however, the company eventually will need to move beyond paper clips.

Commerce One *** Like Ariba, Commerce One is the developer and operator of an Internet-based, global business-to-business procurement network-- like an EBay for B-to-B commerce. Unlike other consumers though businesses need an automated order-fulfillment and order-flow system. Because the B-to-B market is at least 10 times bigger than the business-to-consumer market, Commerce One's early lead could turn into major cash. The company just announced a joint venture with General Motors to create an electronic automotive-trading marketplace based on Commerce One's MarketSite platform. With its hosting business gaining momentum as well, the company is right in the thick of the action-and where most of its rivals want to be.

Intelisys ** Intelisys attracts a lot of attention, although competing with Ariba and Commerce One makes the company about as noisy a place as it could be. The investment firm Forstmann Little just gobbled up a third of Intelisys for \$65 million, and could become its top salesman. Such a move was necessary, because although Intelisys has solid technology, it's also all but unknown. Chase Manhattan, another big-- name customer, will launch a marketplace before year's end that will let its business-banking clients buy and sell goods and services over the Internet with other members of the Chase community. Still, Intelisys needs to get big and get known quickly.

NCR ** Is this company hot? Well, it's at least getting warm. All these years after AT&T bought it and screwed it up, NCR is still reinventing itself Fortunately it has focused its attention on the right place-data warehousing for the CRM market-- and its message is catching fire. NCR was doing marketing automation before the industry existed, with pioneering customers including Wal-- Mart. But it needs to move more rapidly to keep up with fast-rising competition such as E.piphany, Broadbase, and Exchange Applications. Nevertheless, NCR is entrenched in the blue-chip market and continues to get better.

Pivotal *** With its nice hybrid CRM/electronic-commerce strategy, Pivotal should emerge as a major winner as corporate CRM and e-commerce strategies converge. Devoted to the mid-- market but having beaten big players like Siebel more than a few times, the company has an experienced management team that's been there, done that. Pivotal remains relatively unknown, but as it continues to win deals in not one but two red-hot markets, that anonymity will change.

Onyx Software ** Trying to wear the white hats in a black-hat business, with solid products and mostly happy customers, Onyx hasn't been growing as rapidly as its competitors. The company refuses to sling mud to win deals--laudable but perhaps ill-advised in a take-no-- prisoners CRM market. Onyx is growing well, but it needs to become a little less nice and a bit more focused to truly reach the top tier.

BackWeb Technologies * * Push isn't dead-it's just evolved into the CRM market, according to this longtime advocate of the technology. We agree. BackWeb has done a great job of "productizing" push and creating a unique value proposition. A few solid alliances (such as SAP and Baan) have helped. It's still a niche player, but one with big potential in a \$9.3 billion market.

Nortel Clarify ** Clarify CEO Tony Zingale won our turnaround award last year, and this year he gets our "Got Out at the Top" gold medal. It's hard to screw things up in a market as hot as CRM, but the previous management team did just that--and Zingale did a tremendous job of catching this falling knife and timing the company around. Still, Claws near-death experience cost it too many good people and put it behind in the client/server-to-- Web technology transition. Thus, when Nortel Networks came calling with \$2.1 billion, Clarify wisely recognized that things had gone about as far as they could and the money was too good to pass up. There are strong opportunities for the combined entity in verticals like telecom, and an ASP play may be in the works, but Nortel has its own serious catching up to do in CRM.

E.piphany **** Epiphany looks like the early winner in the marketing-- automation arena. Its integrated-analysis and reporting platform with rapid implementation means that companies can act more rapidly on key information about customers. We were indeed skeptical when former KPMG honcho Roger Siboni took over the company, but he has proved that our skepticism was misplaced-- Epiphany is on fire. Its acquisition of RightPoint brings both strong, complementary management and a great team. Drop the gratuitous "E." and we'll be even happier.

Broadbase Software ** Broadbase is another strong turnkey platform proposition like Epiphany, although not quite as integrated or as polished in its marketing. Its acquisition of Rubric strengthens Broadbase's play in the hot marketing-application space and makes the race a two-horse show with Epiphany. Rubric, however, will need to be strip-mined--and the integration effort may not be trivial. Broadbase has a good understanding of CRM, which is a growing play in e-commerce, but management needs to show that it can take the company to the next level. This is particularly true

of Rubric's managers, who had been very good at PR but not nearly as good at selling.

Kana *** Kana took an early lead in the market for Webbased CRM, with a particular focus on e-mail. Having a great product, a fine reputation, and backing by Benchmark Capital doesn't hurt, either. The management team wants to be the gorilla of Web CRM. Kana is putting its market capitalization to good use with three highly complementary, well-focused acquisitions in the past six months (Connectify, NetDialog, and Business Evolution). No doubt, more are pending. But there's no guarantee that Kana will own this market-it's way too early to tell-but the company is off to a great start. The biggest threat will be the communications giants making their way toward Web CRM-particularly Cisco, which is moving fast and furious. For now, though, Kana is clearly ahead of the pack.

MarketSoft * * * This hot startup has a very strong and focused value proposition for companies that sell through indirect channels (in other words, practically all of them). So far MarketSoft has a strong leg up on other rivals with similar technology for indirect channels, because it knows how to sell to the big companies (like Compaq and Covad Communications), and it employs the right decision makers. Most of the competition will end up as roadkill for the traditional CRM giants that build their own modules or acquire them, but MarketSoft looks to validate this space in 2000.

Ask Jeeves ** Can Ask Jeeves grow into a CRM market leader? The answer to that query is uncertain. Few people recognize that Ask jeeves has aspirations well beyond being a question-answering butler-this servant wants to own the mansion. Another early Web CRM leader with a long road ahead, it's at least on the right track, with its recent acquisition of Net Effect and recognition of the need to provide both automated and live help for the next generation of Web customer service.

Octane Software ** Yet another Web CRM contender, Octane boasts a solid management and engineering team consisting primarily of refugees from Siebel and Scopus. It also has a good product and alliances with growing market presence. Octane doesn't have far to go to get into the top tier, although it needs to make the leap sooner rather than later. If the company can execute successfully on plans to be the standard CRM application for ASPs hungry for real Web-centric applications (instead of fat, expensive legacy apps under a browser interface), leadership is just around the corner.

Aspect Communications ** Here's a case of the nice evolution of an old-line call-center vendor into a modern CRM system provider. Aspect's Customer Relationship Portal holds promise, as does the company's experience with call-- center-to-Web integration. In the call-center space, Aspect has always been a leader in customer satisfaction, and it maintains a loyal, blue-chip customer base. As with so many companies in this space, it remains to be seen how much Aspect can deliver on all its grand product ideas, but organizationally it has become a lean, mean selling and marketing machine modeled on enterprise heavyweights like Oracle and Siebel. That alone takes it far beyond the old telephony world and gives it a boost in an increasingly crowded space.

Silknet Software * * Web CRM mover-this one out of the CMGI stable-Silknet has built presence in support, sales and e-commerce markets in a surprisingly quiet but effective way. It has the most complete and well-integrated Web CRM system on the market today, with customers raves and growing recognition. Beefing up Web-based live help and telephony capabilities (to meet the onslaught of the Kanas and the Ask Jeeveses of the world) is all that's needed. Wall Street is beginning to notice that one of the first Web CRM companies is also possibly one of the best.

Calico Commerce ** Calico had one of the more successful IPOs of 1999, although few people really understand what it sells. Its primary technology-- product configuration-is as old as the hills and has always promised more than it delivered. Despite its age, however, product configuration appears to have found a home for itself on the Web. As with competitors Selectica, FirePond, and Trilogy, 2000 will be a make-or--break year for Calico.

FirePond ** Arguably Calicos closest rival, FirePond recognized that its own technology was getting long in the tooth and fundamentally rebuilt it last year. With its unique combination of cutting-- edge technology with one of the longest histories of any software company (founder Jerry Johnson built the first version of the product to sell tractors in the 1970s), FirePond's strategy could pay big-time dividends this year. Although 1999 may have been the year of customer service on the Web, FirePond stands ready to reap the rewards as selling takes precedence in 2000.

Exchange Applications ** The pioneer in defining the space for automated marketing through offline channels such as call centers and direct mail, Exchange Applications boasts a roster of high-- profile customers, including FleetBoston Financial and US West. Barely a year after going public, EA lost a little thunder as turnkey platform plays like E.piphany and Broadbase stole the marketing spotlight with their stratospheric market valuations. Although EA remains the leader and favors major customers, large contracts and lots of services, it needs to move more fleetly and establish a much stronger Web identity as marketing continues to be redefined by the Internet. Buying an e-mail hosting company (GBI Software) was a start, but much more is needed.

Prime Response *** Right behind Exchange Applications in providing powerful marketing software for companies doing lots of phone and direct-mail marketing, Prime Response is building a better Web story (for now). Lots of personnel turnover in 1999 and some unhappy customers almost led to disaster, but the company appears revitalized and has a nice Andersen Consulting equity investment to show for it, with Andersen no doubt hoping that Prime Response turns out to be the next Siebel. The Web story is off to a good start with first customer Priceline.com, and Prime may use a public offering to establish leadership in an increasingly Web-centric category. Or it may get acquired as other CRM giants get religion on marketing.

Fourthchannel ** This electronic-- commerce vendor has a simple yet powerful product aimed at small to midsize businesses. If e-commerce for the masses is to emerge, Fourthchannel may have found the way to do it-- especially if it can build the hosted model that the midmarket so craves and roll out a solid, powerful, and easy-- to-use system to boot.

Sterling Commerce *** Unlike most e-commerce companies, Sterling has big revenues. Its transition from an electronic data interchange (EDI) to a B-to-B commerce company is happening, albeit not without stumbling blocks such as a fumbled XML strategy. The company needs to be more decisive in driving business from the old model to the new. But EDI will provide a steady stream of revenues to smooth the rough transition. Services are becoming an increasingly large portion of the mix, and 2000 will be the critical year if Sterling truly wants to be known as an Internet play rather than a legacy EDI provider. We think it could go either way, although we're leaning toward optimism.

Harbinger * Although it bet big on the EDI business and lost in 1998, Harbinger has been able to reinvent itself as a service provider for B-to-B transactions. Its Harbinger.net trading network is gaining traction.

Nothing motivates a company faster than a near-- death experience. As with Sterling Commerce, 2000 will be a make-or-- break year for Harbinger. Because the company is smaller and perhaps a bit more nimble than its rival, we are cautiously hopeful; however, there's also a much smaller margin for error.

I2 Technologies ** Yes, you read this right-I2 is an e-commerce company. Here's the value proposition: I2 is building a marketplace called TradeMatrix that uniquely uses its advanced optimization and execution capabilities from its core supply-chain optimization product to improve decision-making across digital marketplaces. Get it? Don't feel bad if the answer is no, because part of I2's pitch has always been, "You're not smart enough to understand this stuff, so just pay us a lot of money to do it for you." Well, the strategy has worked, and it's safe to say that I2 holds the leadership position in supply-chain management. But penetrating new markets such as CRM will be much tougher.

Nonstop Solutions ** Nonstop helps Longs Drug Stores figure out just how much Prozac and Prilosec to buy for its network of pharmacies-and not a milligram more. By using a little mathematics rocket science, Nonstop frees up operating capital for its customers by reducing inventory while making sure the right products stay on the shelf. The company is also the mastermind behind keeping online retailers such as Drugstore.com in tip-top inventory condition. But you can't buy a license of Nonstop's wares, or install it on your new server. It's strictly remote-with prices closely based on customer success. The challenge is whether clever little Nonstop will get the big, slow-moving traditional retail segment into high gear. If its clients don't move quickly enough, the company will either need to find another market space or resign itself to being a niche player.

SERVICES

The year 1999 was an interesting, tumultuous period fraught with change for the IT services industry-a time of transition for traditional service firms and a launch year for the new breed of Internet systems integrators/innovators that have established a major beachhead in corporate consciousness. It was also a sorting-out period for enterprises. Key buyers of technology services are signaling that Y2K effects and the related slowdown in new application initiatives are ending, and that the demand for IT services will regain its fast pace in mid-to-late 2000.

MARKET PROJECTION

APPLICATIONS AND COMMERCE SYSTEMS

STOCK PERFORMANCE

For most of the traditional IT service buyers, the key driver in 1999 was the value proposition associated with becoming a hybrid click-and-mortar entity. The spotlight this year will be on managing Internet data centers, providing application services over the Web, custom-managed application services, and distributed infrastructure outsourcing. Enterprises are strategically focused on accruing both intrinsic profit-based value and external market-based valuations. It is this engine that will fuel systems-integration growth rates of more than 17 percent in 2000, with Internet integration growing three times faster.

Last year Internet integration firms-mostly new, some traditional-became more adept at speedy delivery of shorter-term, fixed-price, fixed-time projects even as many traditionalists were preoccupied with continuing work on Y2K, enterprise resource planning (ERP) and other legacy projects. Innovators not only were delivering Web sites, but were also moving up the

value chain and delivering e-business systems.

In this year's enterprise market, expect the pent-up demand for new IT implementations to take center stage. In the post-Y2K era, the buy decision for IT services will be influenced considerably by enterprises' needs for Internet infrastructures and applications. To meet this demand, traditionalists such as EDS, Computer Sciences, Compaq Computer, and Hewlett-Packard-all with varying levels of skills in the integration continuum-will acquire, develop or roll up consulting skills and attempt to scale the innovation mountain.

Meanwhile, newer innovators like Viant, Scient, and Sapient are rapidly moving up the systems-integration food chain, but the pressure will be on to show that they can handle complex projects and seamlessly tie front-end systems into the back end.

One strategy is to focus on the dot-com startup market rather than on legacy customers, but there is almost never much money available as payment here (though potentially lots of stock) . Thus, many of these players are looking as much like incubators as integrators.

What drives services more than anything else is a shortage of skills: The biggest obstacle to growth for almost all of these companies lies in attracting and retaining employees that "get it" as well as love it. The good news is that the customers have it even worse, so the services companies will still have strong demand for their services.

Contributors Gopi Bala, Andy Efstathiou, Perry Harris, Michele Pelino, and Chris Selland

Scient *** The class act among the new breed of systems innovators, Scient has an incredibly powerful brand and management team for such a young company, and a customer base to die for. We used to think it had a chance to be the next EDS, but it could be even bigger. Scient's most pressing problem is a very crowded market space with low barriers to entry and limited talent availability, but the company's rivals face the same set of issues. As long as it continues to execute, Scient should only get stronger.

Sapient *** Sapient has transformed itself from a client/server development shop built on the backs of 24-year-olds working triple shifts into a true e-business innovator. Its smart, balanced acquisition strategy of Web-design shops such as Studio Archetype and Adjacency is paying off, making Sapient an Internet player despite some personnel defections. The company is extremely well managed, with some of the lowest staff turnover in the industry.

IXL Enterprises ** As one of the two largest "roll-up" companies-a conglomeration of acquired companies, (a model about which we are skeptical because the parts usually don't mesh well)-IXL proves the adage that bigger is not necessarily better. If it can't do a better job of holding on to staff this year and building its culture, IXL:s wheels could very well fall off. The company needs to move very quickly to gain the cohesive focus and staff that organically grown competitors such as Scient and Viant bring to bear. If IXL doesn't do this soon, look out below.

Whittman-Hart ** Until it bought the other big roll-up, USWeb/CKS, in December, Whittman-Hart was a clean and organic growth story in back-office integration. Wall Street hated the USWeb/CKS deal--and for good reason, as it made little strategic sense. As with rival IXL, staff retention is a huge problem. If this acquisition works in the long term, we'll stand corrected, but it looks to us like a desperate "get big quick" move that is

doomed to backfire.

AppNet ** Here's a roll-up that is working, probably because AppNet's pace has been measured enough to achieve the culture and focus that its rivals seem to lack- The company has the early momentum and customers, although it is up against some very tough competition and can't afford to slip if it wants to play in the top tier.

Diamond Technology Partners *** Excellent strategic depth and expanding implementation skills give Diamond great potential. The company competes with Scient and with McKinsey & Co. itself for the title of "McKinsey of the Internet," and it has taken an equity stake in several deals-the ultimate sign of faith in one's work.

EDS *** Your father's traditional outsourcer, EDS has made the turn and is moving heavily into the e-sourcing world. Its pace, very slow at first, has quickened considerably since new CEO Dick Brown took the reins. Now its challenges have shifted externally: Moving its tradition-bound customer base will be the toughest part of EDSs e-business transition. It's no secret that fundamentally changing an existing company can be much harder than starting a new one-but if anybody can do it, EDS's Brown can.

Computer Sciences Corp. *** Like EDS, this company is moving ahead-with new initiatives, but its legacy customers are slow to move with it. CSC gets extra credit for putting animosity aside and going ahead with a partnership with Computer Associates: It takes both guts and business acumen to partner with a company that has previously attempted a hostile takeover. To be honest, we don't see CSC as much of a Web innovator; however, its existing business should remain strong, and its blue-chip appeal is only growing.

Andersen Consulting * * * Andersen has obviously been quite successful, and it has also created a strong focus on e-business. The bad news is that its senior partners are in extremely high demand and are bailing in droves to join dot-coms. There will always be a blue-chip market, but Andersen needs to reinvent itself to stay a leader in the e-sourcing revolution. The major loss of staff at the lower levels-- often the people who best understand the Internet--must be stanched.

KPMG *** Excellent leadership and new services bode well for a potential IPO. Cisco Systems' investment of \$1 billion helps, but KPMG needs to stay focused on execution. After all, money may be nice, but delivery is what customers really care about. Still, the firm has embraced the Internet more aggressively than its competitors and is the best-positioned of the Big Five consulting firms in the e-sourcing world.

PricewaterhouseCoopers *** Although it is a thought leader with good consultants and great brand-name customers, PricewaterhouseCoopers lags in electronic commerce and e-business. It must stop sitting on its good reputation and get with the revolution; otherwise its market position will continue to erode. We think the company will take advantage of its fine reputation to get back in the game.

Unisys *** It is winning deals with strong value proposition, and it has a good server lineup to boot, but Unisys still has difficulty selling outside its installed base because of its proprietary high-end platforms and associated independent software vendor (ISV) systems. To continue the impressive turnaround that's happened thus far, CEO Lawrence Weinbach and team need to start taking share, not just retaining it. And they can do it if they keep leveraging their expertise with Windows NT, distributed services, and outsourcing support

Science Applications International Corp. *** The government contractor is

broadening its commercial lines of offerings, but it needs to pick up the pace: Private industry simply moves much faster. SAIC has acquired technology companies (Telcordia/BellCore and Broadway & Seymour) to build its advisory value to private industry. The cultures still do not quite fit, but SAIC has been shifting to more of a private-- sector outlook than before, and it should be able to pull off the transition.

Groupe Bull ** Bull has been struggling with the issue of French government divestiture of ownership. The company's BullSoft, Public Sector, and Integration Services units are points of light that have propelled it forward even as its mainframe business has declined. But Bull needs to move more quickly out of hardware and focus all efforts on its successful software and service businesses, which cater to very large organizations.

Cambridge Technology Partners * See, being early isn't always best. Cambridge thought it could apply what worked in client/server projects to the Internet-- and failed miserably. It is now desperately trying to hold on to what's left of its employee base, but the horses are rapidly leaving the barn. The company's market presence is eroding just as quickly. So is its ability to compete and win, which makes the likelihood of its being acquired this year quite high. Better move fast, because at the rate that people are leaving Cambridge, there soon might be nothing left of it to buy.

Viant ** Despite the name similarity and the same founder, Eric Greenberg, this company has little else in common with Scient. Viant has hewn surprisingly close to the now-failed Cambridge Technology Partners' "fixed price, fixed time" model as applied to Web-based projects. To us, it still has a great deal to prove.

Keane *** Although it faces a difficult transition from Y2K specialist to e-business integrator, Keane is doing a reasonably good job of it so far, and also has made a few smart acquisitions (Fourth Tier and Emergent among them). But the company still has a long way to go. Nevertheless, we think that the management team is up to the task---and the fact that they mostly came from Keane's own ranks makes stability something of a given.

Getronics Wang ** Europe-based Getronics has acquired Wang Global, which was losing money but gaining market share in the low-margin end of the services marketplace. Getronics was very profitable on much lower revenues, and it has already started restructuring aggressively to cut expenses and leverage its technical strengths. This acquisition looks like one that will work.

Syntel ** Syntel has moved out of the Y2K remediation business into e-business projects. Its value proposition: "Fast results at lower costs." It should prosper in the lower-margin side of this business, where quick results matter more than thought leadership.

Primix Solutions ** Primix took a failed software company (OneWave) and turned it into an e-sourcer. Although still small, Primix is growing and well-positioned as it combines skills in e-business strategy, digital branding, and hard-core systems integration. Its nice blend of skill sets makes it a likely buyout candidate, because in this rapidly expanding marketplace the talent shortage remains a bigger obstacle than lack of deals.

Cotelligent ** This staff-augmentation company is fighting hard to move into e-sourcing so that it can avoid continued branding as a "legacy" company and also to increase its market valuation. Cotelligent has developed a plan, an in-- house methodology and a portals practice to turn client firms into e-businesses. The company has brought in new management, but sustained execution will be key to its success this year.

IDS Scheer ** A new focus on services, great tools, and an excellent methodology should help IDS Scheer acquire more of a name in the United States. Its dependence on SAP is loosening, fortunately. IDS is a name we should hear more often.

PKS Information Services ** Although it has undergone major restructuring changes in the past year and has good outsourcing and integration abilities, PKS must put the restructuring issues behind and move more rapidly into e-sourcing.

Zefer * You're kidding, right? A couple of kids fresh out of Harvard Business School sketch up a plan for an Internet services company (gee, there are only, what, thousands of those?) and raise \$100 million? It all seems like a bad dream. Wake us when it's over—or at least when Zefer makes a significant deal or two. For the last year we've seen nothing but hype.

StorageNetworks ** Its unique approach to storage points of presence offers e-business customers more cost-effective systems for their remote-storage needs, as well as access to peak-load storage in which customers pay only for what they use (in other words, storage outsourcing). StorageNetwork's model is an innovative one that may take off, depending on the market's willingness to accept the concept of remotely located storage and to believe that the security of mission-critical data will remain intact.

Exodus Communications **** Who hosts the big guys? Exodus. This service provider to the stars is the leading colocation Web-hosting service provider of Web giants such as EBay, Lycos, MSNBC, and Yahoo. We also like the company's new globalization focus and its expanded service offerings, which give it economies of scale and scope that will be hard to match. Exodus' recent purchase of Service Metrics and a new partnership with Inktomi expand its offerings and move the company into hot new areas, including traffic analysis and content delivery. If it can keep up with market growth—thus far its Achilles' heel, as service outages and network problems have been far too numerous—Exodus will be tough, if not impossible, to catch.

Intira ** Attempting to go Exodus one better by moving beyond colocation and first-generation hosting, Intira is perhaps the best example of what we call the "Netsourcing" model: Rather than providing a cage and a couple of plugs for your server (a la Exodus), a Netsourcer provides everything but the app. In a hotly competitive hosting market, Intira offers a value proposition that we believe is differentiated enough to command attention, despite tough competition from Exodus, Intel—which is entering the market with a similar value proposition—and many, many other companies. Bottom line: The outsourcing of e-business infrastructure is still in its infancy, and right now there is more than enough room for a new player with strong management and the right focus. Intira has both in spades.

USInternetworking ** The self-proclaimed inventor of the application service provider (ASP) market, USinternetworking has thus far overpromised and underdelivered. If it doesn't get its act together—and quickly—it could tar the whole ASP sector. Two big questions for 2000: Will ASPs be as big as their hype, and will USinternetworking still be around at year-end? Big bucks invested in both questions argue that the answer is probably yes, but the outcome remains questionable.

FutureLink ** This ASP pioneer has some good ideas, such as taking any apps and Web-enabling them, along with aggressive execution. FutureLink has new management and good alliances, but the field is rapidly becoming saturated and the market isn't nearly big enough to support the croearly lead may fade if it fails to move very quickly. Its strong relationship with thin--

client technology provider Citrix Systems is key: Both companies are and will probably remain closely linked (do we smell a merger?), and they should succeed or fail together.

Telecomputing ** This is a name you should be hearing much more often—a European ASP making moves in the U.S. market. Although it needs stronger alliances and branding to develop a presence here, Telecomputing has more customers and experience than most. The key will be in building its brand and presence in the United States before its many less-experienced but better-known domestic competitors catch up. We think that Telecomputing is up to the task.

NEXT-GENERATION NETWORKS

After years of hype, the equipment market for digital subscriber line (DSL) technology truly emerged in 1999. SBC Communications and Bell Atlantic announced massive infrastructure rollout programs, spurred by the threat of cable-modem services for consumers as well as competition in the business arena from data-focused competitive local-exchange carriers (CLECs). Prominent among this new breed of service provider are Rhythms NetConnections, Northpoint Communications, and Covad Communications. Benefiting from this activity are makers of DSL access multiplexers (DSLAMs), such as Alcatel, Cisco Systems, Copper Mountain, and Nokia, which build and sell equipment that terminates DSL connections.

MARKET PROJECTION

SERVICES

STOCK PERFORMANCE

In addition to laying the groundwork for DSL services, the industry is anticipating the delivery of packetized voice service over DSL connections. This reflects a larger overall communications strategy of unifying services to cut operating costs and use existing infrastructure. Key hardware vendors include Jetstream Communications, CopperCom, Efficient Networks, and TollBridge Technologies.

The Internet router market finally has competition for the first time: Cisco Systems now shares the space with Juniper Networks. Both companies are enjoying strong sales growth for their respective offerings and have products deployed in operational networks. Meanwhile, large traditional telco vendors like Lucent Technologies, Siemens, and Ericsson have picked up the top router startups. They realize that data—not voice—equipment is what will fuel future sales growth. The windows of opportunity open and close quickly, very much favoring the incumbents.

The future needs of the overall Internet router market will be dominated by two factors: ever-increasing speed and extremely stable, sophisticated value-added software. Higher speed is more dominant in the core market segment, while software is more dominant in the edge segment. The overall market requires that vendors be able to provide customer solutions in "Internet time." New entrants can get into the market by leapfrogging the competition in performance, or by offering a broad range of products (such as voice-related or Sonet multiplexers) sold as a bundle with Internet routers.

This year, the core market will move from OC-48 speeds to OC-192, a fourfold increase. Cisco and Juniper are well-positioned to capture much of this market, with Lucent representing the strongest outside competitive threat. The edge market will be characterized by software-rich, highly scalable products. Best positioned are new offerings from Siemens Unisphere

Solutions (through its Redstone Communications acquisition), from Nortel Networks (through its Shasta Networks acquisition), and from new entrant CoSine Communications. Cisco will maintain much of its market share, even though it lacks a state-of-the-art product.

Contributors. Jennifer Pigg and Mark Lowenstein

Akamai Technologies *** A secret formula for caching content-and thereby speeding up Web-site downloads-took this startup from nowhere to more than \$25 billion in market capitalization last year. Major investments from Cisco and Microsoft have positioned Akamai well for its second act: delivering streaming media and applications from its distributed network. These markets are just emerging but will become tremendously important over the next 24 months.

Nortel Networks *** Nortel made a strong move by aggressively introducing succession networks in the first part of 1999, gaining some early mind share in the migration of voice from circuit to packet networks. Wireless has also been a big success story for Nortel, although the company has had difficulty taking advantage of its early lead on mobile IP. Other moves, including increased public marketing, new product introductions, and acquisitions such as Shasta Networks, have helped move Nortel away from its traditionally quiet legacy into the limelight of the Internet infrastructure. As optical technology becomes increasingly important, the company is very nicely positioned.

Avid System ** Since it parted ways with Nortel, Avici's ability to get a foot in the customer's door has been much weakened. The prognosis is not good for the terabit network builder.

Cisco System **** Market share, shrewd leadership and marketing muscle will keep Cisco going indefinitely. Emerging rivals are forcing the company to move its technology to the next level, but outstanding management makes it likely to succeed.

Juniper Networks *** Innovation, focus, and precise execution will help Juniper enjoy strong growth for years to come.

Lucent Technologies *** The company has made some excellent strategic acquisitions, including International Network Services (INS) and Nexabit Networks. The combination will provide consulting and operations for voice and data networks of enterprises and service providers, innovative software systems for performance analysis and management, and a unique application-analysis capability through its VitalSuite products. Lucent has great hardware, but its ability to innovate at Internet speeds still must be proven.

Newbridge Networks ** It's been a rough year for Newbridge, with some unfortunate earnings announcements, supply-chain problems, heavy competition, and finally the ouster of President Alan Lutz. Despite these negatives, the company still has a strong product line and has moved into new arenas such as subscriber management and Local Multipoint Distribution Service (LMDS). Whether these new initiatives will pull Newbridge out of its funk remains to be seen, but 2000 will likely be a long year for the company.

Siemens Unisphere Solutions *** Great products, strong management and large-company backing will make Unisphere successful in the edge--networking space.

PSINet *** The original commercial Internet service provider has remained independent for another year-impressive given rampant industry consolidation. To prosper, PSINet has gobbled up international ISPs and

their customers just as quickly as it can, in an attempt to become an worldwide IP supercarrier.

Internet Security Systems *** CEO Tom Noonan and his team continued the company's strong revenue growth in 1999--more than \$80.3 million, representing a 122-percent increase over 1998. This for a company that only two years ago had a mere \$13.5 million in revenue. ISS retains a commanding No. 1 position in the market for adaptive network security management, with more than 30 percent market share. Its acquisition of Netrex, a provider of managed network security services, gives ISS a core professional-- services organization that it desperately needed, as well as a strong and recurring revenue stream that should further turbocharge its earnings.

Cylink *** Almost down and out in 1998 after revenue-recognition questions, Cylink made a strong comeback in 1999 under the leadership of new CEO William Crowell. With further product development and new releases of virtual private network (VPN) technology for ATM, frame relay, and IP networks; rolling out of public-key infrastructure products; and the further refinement of its secure Web-access products, Cylink should move into the mainstream of the e-commerce market. Don't be surprised if a network hardware vendor, in search of these components, purchases Cylink by the end of the year.

NetSolve ** One of the last remaining independent managed-network-services companies, NetSolve provides ongoing remote WAN and LAN management and a broad set of security services, including intrusion detection and firewall management.

Information Resource Engineering *** CEO Anthony Caputo's role in the development of the SafeNet suite combination of hardware and software for VPN systems--has been truly industry-- leading: IRE can now boast every major networking vendor (including Cisco, Lucent, Cabletron, Network Alchemy, Xedia, and Altiga) as an OEM partner, for both VPN acceleration hardware and client-side software.

MARKET PROJECTION

NEXT-GENERATION NETWORKS

CoSine Communications ** A startup that has executed well, CoSine brings service providers products that help them build IP-based VPNs--the next wave of IP value-added services.

Alcatel Optics ** Alcatel started last year as the No. 2 maker of DSLAMs in the United States. By midyear, the company had doubled its market share to capture over half of all U.S. DSLAM orders, and solidified its position as the leading manufacturer worldwide. Alcatel has contracts with SBC, Bell Atlantic, and BellSouth.

Copper Mountain Networks *** With a product focused on CLECs that deliver service to small and midsize businesses, Copper Mountain has leveraged key relationships with Northpoint Communications, Rhythms NetConnections, and other companies to become the leading supplier of DSLAMs for the business market. In a departure from its core strategy, Copper Mountain recently announced the ability to terminate consumer DSL connections as well.

Digital Island ** In a universe flooded with application service providers (ASPs), Digital Island was one of the first companies to realize that content is key. In fact, it has built a business squarely focused on the challenge of content delivery to multinational companies scattered around the globe. With data centers in London and Hong Kong, Digital Island is also one of the few providers to address the international bandwidth bottleneck. Its merger with content-delivery enabler Sandpiper Networks

further demonstrates that competitors will have to offer the same suite of effective and economical delivery mechanisms to stay afloat.

Predictive Systems ** A network consulting and integration **company**, Predictive has innovative methodologies to **assess** technology **risks** and provide network systems. Its expertise covers both **service providers** and enterprises, and its systems include network management, performance management, internetwork design, and information security. Comdisco ** Comdisco, known best for its business-continuity and hardware-- leasing services, is branching out to become a full-service supplier of network consulting, integration and managed services. The company combines expertise in both systems and networks with unique desktop management methodologies.

AT&T Solutions *** Thanks to its partnership with IBM Global Network and its own large worldwide IP network and remote-access capabilities, AT&T Solutions is the world-- wide leader in network integration and outsourcing. It provides outsourcing services for large customers as well as out-tasking services for smaller customers with a broad set of systems across all data communications technologies and transports.

IPVerse *** This small startup is making a large splash as an innovator in call control and service delivery for next-generation service-provider networks. Aggressive providers such as Qwest Communications and Level 3 Communications are looking to IPVerse to outfit their voice-over-IP networks with open service delivery and communications to traditional phone networks. The company has also teamed up with several convergence-- switch vendors to help them provide full systems for circuit-to -packet voice migration.

WIRELESS

The wireless industry made a comeback in 1999. Most of the carriers posted gains in average revenues per subscriber-an important measure signaling the acceptance of all-inclusive rate plans. We are seeing the beginnings of landline displacement: 2 percent of wireless users in the United States say that their only phones are mobile, and the Yankee Group estimates that some 250,000 users have cut the cord in the United States. As landline networks are optimized for high-speed data, more voice traffic will migrate to wireless networks.

STOCK PERFORMANCE

The carrier side of the industry has seen tremendous consolidation. There will soon be five nationwide (or nearly nationwide) carriers: AT&T Wireless, MCI WorldCom-Sprint PCS, Nextel Communications, Bell Atlantic-GTE-AirTouch, and SBC-Ameritech. The Global System for Mobile Communications (GSM) community is rapidly consolidating as well, led by VoiceStream Wireless (and its European investors Hutchison Telecommunications and Sonera). The era of the wireless pure-play is coming to an end, and roaming as we've known it is going away as well. The surge in wireless usage is leading to continued high-- capacity expansion in wireless networks, benefiting the infrastructure manufacturers. The leaders-Lucent Technologies, Nortel Networks, Motorola, and Ericsson-have all posted significant stock market gains. In 2000, for the first time ever in wireless, we expect capacity expansion to exceed network buildout.

In terms of the ascendance of the wireless Internet we credit Phone.com. The company has been successful in developing a widely adopted standard called WAP (Wireless Application Protocol) that optimizes Web content for mobile devices. Sprint PCS has also been a galvanizing force, by introducing a user-friendly, consumer-oriented service. Sprint's offerings still have

some problems with spotty coverage, which affect lucrative data services even more than it does voice traffic, but it has good partners such as Yahoo and a bevy of content providers, all backed up by a \$20 million advertising campaign. Such activity may be a case of a rising tide lifting all boats: Look for aggressive moves in data this year from AT&T Wireless, Bell Atlantic, and Nextel Communications.

We will also see lots of innovation on the mobile-device side. Nokia continues to be the market-share leader, but it has lost a little momentum. Upstart Neopoint has introduced a mobile phone with a great screen and excellent navigation features for data, and Motorola has finally come out with a long-- awaited series of multinet digital models. Handheld PCs such as the Palm and Windows CE devices will increasingly be equipped with wireless communications capability; and as such will become true mobile companions.

Contributor.- Mark Lowenstein

AT&T Wireless *** The tremendous success of its Digital One Rate plan has turned the industry upside down and sparked a wave of consolidation. AT&T is now marketing innovative plans that target the youth market. In data efforts it has stumbled a bit, but the company hopes to rectify those missteps this year.

Sprint PCS *** The fastest-growing wireless carrier, Sprint PCS has successfully launched wireless data services. Its churn rates, network coverage, and customer care have all improved since 1998. Its dual-mode phones have helped alleviate coverage problems, but Sprint still gets lots of coverage complaints. That needs to change for Sprint to take advantage of lucrative data services.

Nextel Communications *** This company continues to be a hit with mobile workgroups. Its I-1000 handset has helped Nextel move into the mainstream market. The company is also pinning lots of hope on data services with help from Microsoft. It's a good bet, but the service has been delayed by several months. Nextel hopes to solve its network-capacity challenge by buying additional spectrum from defunct C-block PCS (personal communications services) carriers.

Bell Atlantic Mobile *** The best-run of the original cellular carriers, it will be the largest wireless provider after GTE and AirTouch are pulled together into Bell Atlantic, with a 27-percent market share. While somewhat conservative when it comes to introducing new services, the company focuses on network coverage and quality. This steady company needs to move faster on partnerships for data, however.

VoiceStream Wireless * * * The leading U.S. GSM consolidation firm (along with investors Hutchison and Sonera), VoiceStream is a superbly managed company. But it still faces challenges in completing a nationwide GSM footprint, and it needs to adopt a stronger leadership position on data. Both of these initiatives will require a significant capital infusion and potentially a strategic investor or acquisition.

Telia Mobitel **** With its "Department of the Future" program, 10 percent of revenues coming from data services in 1999, and the leading position in the Swedish wireless market, Telia is setting the standards for the movement from voice dominance to a voice-plus -visual wireless-communications business. The company is continually vying for over-- all European leadership with Sonera, Finland's top wireless firm.

Omnitel Pronto Italia *** Right from the start, Omnitel has proven to be a viable competitor to the Italian market leader, Telecom Italia Mobile. With its Internet portal, Omnitel 2000, the company is going for No. 1 in Italy,

working with Microsoft for its Web portal, and focusing on creating Internet-like communities for which it hopes to offer new services. Omnitel is an above-average bet, as Italians love their mobile phones.

NTT DoCoMo *** Japan's dominant wireless carrier is on the move, and it has taken a leadership position in data. With billions in the bank from its highly successful IPO, the company is looking across the globe for third-generation investment opportunities. The question is, Can NTT DoCoMo replicate the success of its I-Mode wireless packet service in other markets? We think it can.

Nokia **** The market-share leader has lost just a touch of momentum as competitors have regained some ground. Nokia's superb manufacturing has ensured global availability of its popular handset models, but the company's infrastructure position could be in jeopardy if the one-stop-shop purchasing paradigm comes into force. We're still looking for Nokia's next-generation data phone, which is key to its continued leadership through 2000.

Ericsson *** The company has bottomed out, and it is putting the pieces into place to regain share. Ericsson continues to be strong in infrastructure and is looking to be a leader in mobile IP telephony, but when will it figure out that mobile handsets are consumer products? Execution will be critical this year. The recent Microsoft agreement is a good first step.

Motorola *** The comeback kid of 1999, Motorola introduced long-- awaited digital models and data-ready phones, and it still has a magical brand. The company is involved in more alliances and strategic investments than we can keep track of, but many are underleveraged. Its wireless infrastructure (tied to Cisco Systems) is only now getting off the ground, but it is worth more than \$1 billion.

Qualcomm *** Certainly one of the great stock stories of 1999, Qualcomm's real value lies in its intellectual-property position and integrated-circuits business, which benefits from the global subscriber boom. The major wild cards are the role of CDMA (code division multiple access) in third-generation wireless networks, and whether the standard becomes more widely adopted in Europe and Asia-- which would help increase CDMA market share.

Palm **** With so many carriers, vendors, service providers, and Internet companies relying on Palm's gizmos to entice consumers into the wireless world, the company will play a key role in defining the wireless Internet experience. But the devices' screen size, input method, processing power, memory, and battery life need to be integrated and better leveraged for the mobile consumer. Still, with its operating systems licensed to companies such as Nokia, expect the Palm OS to become the wireless user interface of choice. The market's vote on the Palm spinoff from 3Com has so far been very positive; so is ours.

Research In Motion * * * RIM Interactive Pager has become popular as -a wirelessly integrated device for financial services and enterprise connectivity systems. The company's challenge is to expand the distribution channels for the device beyond its partners BellSouth Wireless Data, American Mobile Satellite, and Ardis, as well as to strengthen its own direct and indirect channels to improve the market opportunity for the product. We're confident in this company's role as an innovator.

Symbian *** With the backing of the British handheld-- computer developer Psion as well as the world's top mobile-phone companies, Symbian is poised to be a central player in the battles against Microsoft and Palm to be the

dominant operating system for mobile phones. But will internal feuds strangle this prodigy before it can get off its feet? Will Microsoft squash this small competitor, or will new OS developments elsewhere beat Symbian to the punch? The odds are 50-50.

Arch Communications *** Empowered with distribution channels, network coverage, good spectrum, and 16 million subscribers, this new leader of the paging industry (having acquired industry giants MobileMedia and PageNet) has the tools and resources to prove to investors that there is still a market for messaging services. Look for Arch to expand paging technology into new markets and services that may not yet be apparent. The company's execution strategy should become clearer once it more fully absorbs PageNet.

Centigram Communications *** With a major announcement that it is now Cable & Wireless's preferred enhanced-service vendor, Centigram is set to become a more significant international player. In addition, its new Internet-oriented unified communications platform puts the company in a strong position, as the Web becomes home base for the future of integrated messaging.

Comverse Technology *** Still a major player in voice processing and enhanced services, Comverse is also moving into the information age with new products--such as the InfoPeeler--that let service providers customize information delivery for a customer to access anytime, anywhere. But this well-managed company needs partnerships in the IP space.

Call Sciences *** It hit a home run as a major component of Telia's Department of the Future offering to high-end users. Now it has improved its distribution channels and product offering. And rumor has it that Call Sciences will be announcing several other major deals for its unified messaging platform over the next few months; these will make or break the company.

I3 Mobile *** When the company was founded in 1991 as Intelligent Information and started offering content services for wireless devices, it either was lucky or had an uncanny ability to see the future. Now with wireless Internet services and applications in full swing, with content delivery leading the charge, I3 Mobile can take advantage of an industry segment that it played a large part in developing. With messaging traffic increasing by 50 percent between January and July 1999, the company is positioned to meet the formerly latent demand for wireless messaging services.

Phone.com **** This company has gone a long way to make sure the WAP gospel (including the version developed by Apion) is being preached everywhere. The faithful include all major wireless players, as well as some nontraditional wireless companies-- indicating that Phone.com is playing a distinct role in shaping the cellular/PCS vision for wireless Internet services market opportunities. There is also a good opportunity for this platform to bridge not only wireless and the Internet but also different wireless technologies.

Aether Systems *** With a background in supplying enterprise mobile data systems, Aether has created an underlying technology and outsourcing service system to meet the mobile data needs of enterprises, financial--service companies and consumers alike. With a little more time and elbow grease, it can set the standard for deploying mobile data systems all over the world. Aether is making an early play in this space, which is still emerging but holds loads of potential.

Puma Technology *** With all the hype surrounding wireless Internet

services, the customer may easily be satisfied with the end service while paying little or no heed to the enabling technology. Puma and a few other companies, including Riverbed Technologies and Certicom, have made their mark in providing facilities such as synchronization (as well as information management, applications development, and encryption), without which the market for wireless Internet services would still be stalled. This interesting niche, if successful, will ride on the coattails of wireless data.

Nuance Communications *** Voice interfacing into a world of text-based information will be a major enabler of the new mobile environment. Nuance is at the core, with voice-recognition algorithms that it has licensed or used to create key partnerships with major players in the wireless industry. Keep listening for more!

SignalSoft ***** The Switzerland of all the location-technology developments, SignalSoft has signed several key deals in Europe and is also positioned as the market leader in the United States. Its products enable services such as location-sensitive billing and one-to-one location-based information and marketing. The company must tie the technology to a mobile data play, which would mean the mass personalization nirvana we all dream of

MARKET PROJECTION

WIRELESS SYSTEMS

STOCK PERFORMANCE

E-Business ISO Alphabetical index

E-Business 150 Alphabetical index

UPSIDE'S ADVERTISING INDEX CONNECTIONS TO UPSIDE How We Score the Companies

Our commentary is based on the 1,500-plus meetings we have each year at Yankee Group and is intended to predict what the future holds for each company. We also added a list of up-and-comers-companies that could make the list one or two years down the road. We then scored all the companies in four areas, on a scale of 1 to 5, with 5 being best. Finally, we calculated an overall score by weighting the five areas as follows: Innovation, 25 percent; Market Share, 20 percent; Overseas Strength, 15 percent; Management 25 percent; Alliances, 15 percent.

Innovation Is the company a true innovator within its industry? Are their offerings really innovations or just short-term fixes? Most difficult of all to measure are the company's innovations (if any) and ability to innovate continuously?

Market Share What is the company's market share within its primary lines of business, and is it growing or losing that share? How effectively is the company entering new markets? If it fails in a market how quickly does it cut losses? No company (at least no non-Internet company) can continue to pour R&D into its offerings if the investments aren't paying off, and customers know that big market share means that customers are not alone.

Overseas Strength What percentage of the company's business comes from outside the United States? (A score of 5 means more than 50 percent of its volume comes from overseas; a score of 1 means less than 20 percent.) The Internet not only makes technology global, but it becomes the great equalizer, so customers demand to see the same technology available

everywhere.

Alliances What are the company's alliances, and how well do they stack up against those of competitors? Are the alliances tactical or strategic? Short-term or long-term? Focused or vague? Are they real partnerships or mere press-release relationships? Alliances backed by substantial joint engineering and development not only save customers pain and inconvenience, but they can also provide a broader solution scope than individual contributors can—a key to staying power.

Growth How rapidly is the company growing? (A score of 5 means it is growing more than 30 percent a year; 1 means less than 15 percent annual growth.) How does its growth compare to that of its competitors? Is its growth generated internally or through mergers? And has the company gone from being a one-trick pony to developing an entire product line that works together?

Chris Selland is vice President of the Yankee Group's e-business Strategies Research and Consulting Group.

Howard Anderson is the founder and chairman of the Yankee Group, as well as a partner in Battery Ventures and a managing partner at YankeeTek.

Additional research by UPSIDE assistant editors Elizabeth Desimone and Dan Selicaro.

The Yankee Group may provide research information or other consulting services to the companies mentioned in this article. the com

THIS IS THE FULL-TEXT.

Copyright Upside Publishing Company Mar 2000

Company Names:

Microsoft Corp (Duns: 08-146-6849) (Ticker: MSFT NAICS:334611) (NAICS:511210)

E.ipiphany (NAICS:511210)

Andersen Consulting (NAICS:541611)

Cisco Systems Inc (Duns: 15-380-4570)

Geographic Names: United States; US

Descriptors: Manycompanies; Ratings & rankings; Internet; Electronic commerce; Computer peripherals; Computer networks; Wireless communications; Computer service industry

Classification Codes: 5250 (CN=Telecommunications systems & Internet communications); 8302 (CN=Software and computer services); 8651 (CN=Computer industry); 8330 (CN=Broadcasting & telecommunications); 8331 (CN=Internet services industry); 9190 (CN=United States)

Print Media ID: 10989
